Journal of Visualized Experiments

A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga Chlamydomonas reinhardtii

--Manuscript Draft--

Article Type:	Invited Methods Article - JoVE Produced Video
Manuscript Number:	JoVE59547R1
Full Title:	A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga Chlamydomonas reinhardtii
Keywords:	lipidomics; metabolomics; proteomics; starch; Systems Biology; liquid-liquid extraction; synchronized Chlamydomonas reinhardtii cultures; diurnal analysis
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Additional Information:	
Question	**Response**
Please indicate whether this article will be Standard Access or Open Access.	Open Access (US$4,200)
Please indicate the **city, state/province, and country** where this article will be **filmed**. Please do not use abbreviations.	Potsdam, Germany

March 8, 2019
Dr. Bing Wu
Review Editor
JoVE

Dear Dr. Bing Wu

We are extremely grateful to the editors and reviewers for making an effort to review our manuscript JoVE59547 "A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga *Chlamydomonas reinhardtii* ". We have taken the comments seriously and went through all sections of manuscripts to incorporate the suggested changes/corrections as much as possible. Indeed this has improved the quality of the manuscript making the protocol more clear and easy to reproduce for the readers.

Moreover, we have added a link to the editorial policy of our previously published manuscript which was used as a source of some data and figures to be reproduced. Additionally, the copyright license, generated via electronic portal of the publishers is also attached.

We hope that the protocol in its actual form fulfills now the requirements of being accepted and also published soon in the Journal of Visualized Experiments.

Thank you for your consideration of this manuscript. We look forward to hearing from you.

Sincerely yours,

Umarah Mubeen on behalf of all authors
Max Planck Institute of Molecular Plant Physiology

TITLE:

A Multi-Omics Extraction Method for the In-Depth Analysis of Synchronized Cultures of the Green Alga *Chlamydomonas reinhardtii*

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KEYWORDS:

lipidomics, metabolomics, proteomics, starch, systems biology, liquid-liquid extraction, synchronized *Chlamydomonas reinhardtii* cultures, diurnal analysis

SUMMARY:

System-wide analysis of multiple biomolecules is crucial to gain functional and mechanistic insights into biological processes. Hereby, an extensive protocol is described for high throughput extraction of lipids, metabolites, proteins and starch from a single sample harvested from synchronized Chlamydomonas culture.

ABSTRACT:

Microalgae have been the focus of research for their applications in the production of high value compounds, food and fuel. Moreover, they are valuable photosynthetic models facilitating the understanding of the basic cellular processes. System wide studies enable comprehensive and in-depth understanding of molecular functions of the organisms. However, multiple independent samples and protocols are required for proteomics, lipidomics and metabolomics studies introducing higher error and variability. A robust high throughput extraction method for the simultaneous extraction of chlorophyll, lipids, metabolites, proteins and starch from a single sample of the green alga *Chlamydomonas reinhardtii* is presented here. The illustrated experimental setup is for Chlamydomonas cultures synchronized using 12 h/12 h light/dark conditions. Samples were collected over a 24 h cell cycle to demonstrate that the metabolites, lipids and starch data obtained using various analytical platforms are well conformed. Furthermore, protein samples collected using the same extraction protocol were used to conduct detailed proteomics analysis to evaluate their quality and reproducibility. Based on the data, it can be inferred that the illustrated method provides a robust and reproducible approach to advance understanding of various biochemical pathways and their functions with greater

confidence for both basic and applied research.

INTRODUCTION:

Microalgae are a rich source of natural products (e.g., fuels, human and animal nutrition, cosmetics and pharmacological substances). Numerous research efforts are carried out to enhance the efficiency of the production of high value products from microalgae[1-4]. Systems-level understanding of metabolism is a pre-requisite to improve the quality and the yield of natural products[5-7]. With the advent of functional genomic techniques and improved mass spectrometry methods, thousands of genes, transcripts, proteins, and metabolites can be monitored simultaneously. However, multiple samples are required for in-depth proteomics, lipidomics and metabolomics studies, which is often difficult to achieve in unicellular organisms, especially if time course studies are to be performed. Moreover, collection and processing of different sample aliquots in combination with different protocols to collect the highly complex omics data (i.e., proteomic, lipidomic, and metabolomics) introduces variability, thus making the integration of data a challenging task.

Chlamydomonas provides not only an excellent microbial system for the investigation of cellular processes, but also a convenient model to study the coordination of cell cycle and metabolism. Accordingly, a strong coordination of the transcripts expression with cell cycle has been shown using high resolution transcriptome profiling of synchronized culture of Chlamydomonas[8]. About 80% of the analyzed transcripts exhibited robust periodicity over a 24 h cell cycle[8]. Likewise, dry weight, proteins, chlorophyll, amino acids and fatty acids of two different strains of *Chlamydomonas* were shown to correlate with cell division in a study where sampling was performed every 4 h[9]. Recently, it was reported that the metabolite and lipid dynamics of the cell shift based on specific phases of the cell cycle[10]. The subtle changes in different biomolecules were possible to monitor using a robust methyl *tert*-butyl ether (MTBE): methanol: water-based extraction method, which offers an ideal starting point for comprehensive multi-omics analysis[10,11].

The presented protocol guides through a reproducible and efficient strategy[10], for the simultaneous extraction of lipids, metabolites, proteins and starch from a single sample aliquot, for the time resolved metabolomic and lipidomic study of synchronous growing Chlamydomonas cultures. In addition to illustrating the robust and reproducible metabolic and lipidomic data[10], here, the quality of the proteomic samples obtained from the same pellet is also demonstrated.

PROTOCOL:

1. Pre-cultures of *Chlamydomonas reinhardtii*

1.1. Prepare the pre-cultures of *Chlamydomonas reinhardtii* (strain wild type CC-1690 mt+) by transferring cells from solid plates of TAP medium to Erlenmeyer flasks with 200 mL of HSM medium[12].

1.2. Grow the pre-cultures on a rotatory shaker at 24 °C at 100 µmoles·m^{-2}·s^{-1} continuous

light until the cell density reaches ~ 2 x 10^6 cells/mL.

2. Synchronization of Chlamydomonas liquid cultures in fermenters

NOTE: The parameters presented in this protocol, such as temperature, light and CO_2, are specific to synchronization of the strain CC-1690 mt+. In order to develop a synchronized culture using another strain, it is necessary to test the optimal conditions.

2.1. Transfer the pre-culture to a fermenter system (see **Supplementary Figure 1** for the custom-made fermenter design), connected to a recirculating cooler to maintain the temperature, with bubbling of filtered CO_2 (2%, v/v) and stirred with a magnetic stir bar at the bottom of the fermenter with constant agitation.

2.2. To initiate the synchronization, set the fermenter at light-dark regime of 12:12 h, under 34 °C and 200 µmoles·m^{-2}·s^{-1} light and ensure it contains 500 mL of culture in HSM medium with a cell density of 1 x 10^6 cells/mL.

2.3. At the end of 24 h cycle, re-dilute the culture to 1 x 10^6 cells/mL with fresh HSM medium with minimal perturbation by using a tube system in combination with peristaltic pumps, which allows to first pump a distinct amount of culture out and afterwards pump in autoclave-sterilized medium.

NOTE: As an alternate to peristaltic pumps, inoculating syringes can be used to withdraw the culture, while the required volume of fresh medium can be added directly into the fermenter under sterile conditions.

2.4. Repeat step 2.3 three times to obtain the synchronized cultures on 4^{th} day of inoculation.

2.5. In order to validate synchrony of cells, harvest samples at an interval of every 2 h and measure the cell density and cell volume using a cell counter and size analyzer (see **Table of Materials**). Depending on the cell density, dilute the samples between 1:10 to 1:100 and measure in a size range of 30 – 1900 µm^3.

3. Harvesting Chlamydomonas cells

3.1. Label 15 mL conical centrifuge tubes and prepare a dewar filled with liquid nitrogen.

3.2. Harvest samples using a syringe (50 cm^3) through the inner glass tube of the fermenter. Distribute the sample into conical centrifuge tubes which should contain 10-15 x 10^6 cells. Note the volume transferred to each tube and measure the cell density and the cell size of each time point using cell counter and size analyzer (see **Table of Materials**)

3.3. Pellet the cells by centrifugation for 5 min at 4000 x *g*. Then discard the supernatant, freeze the pellets in liquid nitrogen and later store at -80 °C.

4. Preparation of extraction buffers and extraction chlorophyll, lipids and metabolites

CAUTION: Methanol (MeOH) and MTBE are flammable and can cause irritation of respiratory tract, eye or skin on prolonged exposure and/or contact. Please handle them carefully only in a fume hood and use the appropriate safety procedures during the extraction (lab coat, safety glasses, gloves, etc.).

4.1. Extraction Buffer 1

4.1.1. In a 100 mL volumetric flask, add 75 mL of MTBE, 25 mL of MeOH (UHPLC grade) and homogenize (3:1, vol/vol).

4.1.2. Add the following internal standards solution: 50 µL of corticosterone (1 mg/mL in MeOH), 50 µL 1,2-diheptadecanoyl-SN-glycero-3-phosphocholine (17:0 PC) (1 mg/mL in chloroform HPLC grade), 25 µL of ampicillin (1 mg/mL in water UHPLC grade) and 50 µL of D-Sorbitol-1-13C (1 mg/mL in water UHPLC grade).

4.1.3. Transfer the extraction buffer to a clean glass bottle and pre-cool the solution at -20 °C, 1 h before use. Use freshly prepared solution for the extractions. This solution can be stored at 4 °C for up to 2 weeks.

4.2. Extraction Buffer 2

4.2.1. In a 100 mL volumetric flask, add 75 mL of water UHPLC grade and 25 mL of MeOH UHPLC grade and homogenize.

4.2.2. Transfer the extraction buffer to a clean glass bottle. Use fresh solution for the extractions. This solution can be stored at room temperature for several weeks.

5. Extraction of chlorophyll, lipids and metabolites

5.1. Arrange the tubes, with the cell pellet (containing 10-15 x 10^6 cells), in liquid nitrogen.

5.2. Resuspend the cell pellet in each tube with 1 mL of pre-cooled (-20 °C) Extraction Buffer 1.

NOTE: Perform this step quickly to avoid evaporation of low viscosity extraction buffer. After adding the Extraction Buffer 1, maintain the tubes at room temperature.

5.3. Vortex until the cells are well homogenized within the extraction mixture and aliquot the mixture into 2 mL microcentrifuge tube.

5.4. Sonicate the cultures using sonication bath (see **Table of Materials**) in ice cooled water

for 10 min.

5.5. Incubate all the samples on an orbital shaker at 1000 rpm for 60 min at 4 °C.

5.6. To induce the phase separation, add 650 µL of Extraction Buffer 2.

5.7. Vortex briefly followed by centrifugation at 20000 x *g* for 5 min at 4 °C.

NOTE: After this step, there is a separation of liquid phases and a solid pellet in the bottom of the tube. Handle the tubes with care to avoid mixing of the two liquid phases. The top MTBE-phase contains lipids and chlorophyll, while the lower phase contains the polar and semi-polar metabolites. The precipitated pellet at the bottom contains proteins, starch and other insoluble molecules.

6. Aliquoting the fractions

6.1. Transfer 500 µL of upper MTBE-phase (lipids) into a labelled 1.5 mL tube. Dry the samples using a vacuum concentrator (see **Table of Materials**) and store at -80 °C until measurement.

6.2. Remove the remaining MTBE-phase using a 200 µL pipette.

6.3. Transfer 650 µL of the lower phase (polar and semi-polar metabolites) to a new labeled tube. Dry the samples using a vacuum concentrator (see **Table of Materials**) and store at -80 °C until measurement.

6.4. Remove the remaining lower phase by pipetting off the excess volume.

6.5. Freeze the solid pellet in liquid nitrogen and store at -80 °C until further extraction.

7. Determination of polar metabolites (primary metabolites)

7.1. Resuspend the dried pellet of the polar phase (step 6.3) in methoxyamine-hydrochloride/pyridine solution for methoxymization of carbonyl groups.

7.2. Heat the samples at 37 °C for 90 min.

7.3. Derivatize the samples with N-methyl-N-trimethylsilyltrifloracetamide (MSTFA) for 30 min at 37 °C as described previously[13].

7.4. Use gas chromatography coupled to time-of-flight mass spectrometry (GC-TOF-MS) to analyze the primary metabolites. The gradient parameters used were according to the previously described protocol[14].

8. Determination of non-polar metabolites (Lipids)

8.1. Re-suspend the dried pellet of non-polar phase (step 6.1) in a mixture of acetonitrile:isopropanol (7:3, v:v).

8.2. Centrifuge at 20000 x *g* and separate on a reverse phase C8 column (100 mm×2.1 mm×1.7 µm particles), using a UPLC system (see **Table of Materials**). The two mobile phases were water with 1% 1 M ammonium acetate, 0.1% acetic acid (Buffer A), and acetonitrile:isopropanol (7:3) containing 1% 1 M ammonium acetate, 0.1% acetic acid (Buffer B).

8.3. Use the gradient parameters according to the previously described protocol[14].

9. Determination of chlorophyll content

9.1. Mix 100 µL of the MTBE-phase (step 6.1) with 900 µL of 90% methanol for a method blank as well as the experimental samples.

9.2. Measure the absorbance using spectrophotometer at a wavelength of 665 nm and 652 nm to distinguish between chlorophyll *a* and chlorophyll *b.*

NOTE: The absorption should range between 0.1 and 1 for valid concentration calculation. Dilute the samples, if necessary.

9.3. Calculate the chlorophyll a and b content, and also the total chlorophyll content according to the following formulas.

$Chl_a = 16.82A_{665} - 9.28A_{652}$

$Chl_b = 36.92A_{652} - 16.54A_{665}$

$Chl_{a=b} = 0.28A_{665} + 27.64A_{652}$

NOTE: The formulas were described by Bar-Nun and Ohad[15].

10. Extraction and determination of the protein content, digestion and analysis

NOTE: To resuspend the protein, pellet urea/thiourea buffer (6 M urea, 2 M thioureaand protease and phosphatase inhibitors) was used with modifications in the protocol previously described[16]. However, any buffer of choice can be used for resuspension of proteins.

10.1. Prepare the protein buffer using the following concentrations: 6 M of urea and 2 M of thiourea.

10.2. Dissolve the pellet (step 6.5) in 200 µL of protein buffer (10.1).

10.3. Incubate the samples at room temperature for 30 min, followed by centrifugation at 20000 x *g* for 5 min.

10.4. Transfer the supernatant, which contains the proteins, to a new tube.

10.5. Determine the protein concentration by Bradford assay[17].

10.6. Digest 50 µg of protein in-solution with a protocol of choice. Here, use the following protocol.

10.6.1. Reduce 50 µg of protein samples using 5 mM DTT for 30 min followed by alkylation using 10 mM iodoacetamide for 30 min at room temperature in dark.

10.6.2. Add Trypsin/Lys-C Mix at a 25:1 protein:protease ratio (w/w), mix and incubate for 3 h at 37 °C.

10.6.3. Dilute the samples six folds using 50 mM TrisHCl (pH 8) and Incubate overnight at 37 °C.

10.6.4. Terminate digestion by adding trifluoroacetic acid (TFA) to a final concentration of 0.5–1%.

10.7. After digestion, perform desalting of the peptides prior to mass spectrometry using C_{18} stage tips and elute the digested peptides[18].

10.8. Concentrate the samples to near dryness, leaving 2-5 µL of solution in a vacuum concentrator (see **Table of Materials**) without heating.

10.9. Resuspend the samples in loading buffer (5% acetonitrile, 0.5% formic acid) and analyze the peptide mixtures by LC-MS/MS using a high-resolution mass spectrometer (see **Table of Materials**) connected to a nano-UPLC system.

10.10. Separate the peptides using UPLC system (see **Table of Materials**) on a 20 cm reverse phase charged surface hybrid (CSH) column (see **Table of Materials**) with an inner diameter of 75 µm and a particle size of 1.7 µm.

10.11. Load 4 µL of sample and run through 90 min gradient at a flow rate of 300 nL/min.

10.12. Set the gradient. Use partial loop-offline settings with isocratic gradient set at 3% of buffer B (99.9% acetonitrile + 0.1% formic acid) held for 14 min before the loop is shifted to online position with the column, thereafter the gradient is increased linearly for 50 min, until 20% buffer B is reached.

10.13. Within the next 15 min, increase the concentration of buffer B to 30%. Then in the following 15 min, increase buffer B to 40%, before reaching 90% of Buffer B after another 4 min. Perform the washing step, which is required to clean the column, at 400 nL/min and hold for additional 10 min (see **Table 1** for detailed gradient conditions).

10.14. Finally, set back the system to a flow rate of 300 nL/min and a concentration of 3% buffer B within 1 min. Equilibrate the column for 15 min before the next sample is injected.

NOTE: A complete list of identified proteins after LCMS/MS analysis is presented in **Table 2**.

11. Extraction and determination of starch content

NOTE: For determination of total protein and starch content, the solid pellet was extracted in a two-step procedure as described previously[10].

11.1. Add 500 µL of 80% (v/v) ethanol to the cell pellet (step 6.5) and incubate for 10 min at 80 °C.

11.2. Centrifuge at 4000 x *g* for 10 min at room temperature. Then dissolve the pellet in 250 µL of sterile water followed by the addition of 250 µL of 100 mM sodium acetate.

11.3. Hydrolyze the starch by heating for 3 h at 99 °C. Digest the dissolved starch into glucose monomers overnight by adding an enzyme mix of α-amylase (4.2 units per sample) and α-amyloglucosidase (10 units per sample). Incubate the tubes at 37 °C overnight.

NOTE: After incubation, samples can be frozen at -20 °C for few days, or at -80 °C for several months, prior to glucose measurements.

11.4. Centrifuge the digested extract at 20000 x *g* for 5 min and collect the supernatant. Dissolve the supernatant (with the starch-derived glucose monomers) in 100 mM of HEPES-buffer (pH 7) that contains 5 mM $MgCl_2$, 60 mg/mL ATP, 36 mg/mL NADP and glucose-6-phosphate-dehydrogenase (1 unit per sample).

11.5. In order to analyze the starch content, first measure the baseline absorbance at 340 nm. Then add hexokinase (1 unit per sample) to start the reaction. Finally measure the increase of $NADPH+H^+$ (indicating level of starch digested to glucose) at 340 nm with a 96-well plate reader.

NOTE: The difference of the maximum value at 340 nm (should not exceed the linear range of 1) and the baseline is equivalent to the glucose concentration of the digested starch. A glucose curve should be made to determine the glucose concentration in nmol of glucose per mL.

REPRESENTATIVE RESULTS:

Chlamydomonas reinhardtii CC-1690 culture synchronization

To demonstrate the representative results for the given protocol, we present the example multi-omics data obtained after harvesting and extraction of samples from synchronized *Chlamydomonas reinhardtii* cultures[10]. Synchronized cultures of Chlamydomonas comprise of cells belonging to uniform growth phase at a specific time point. The Chlamydomonas cultures

were synchronized at 12 h/12 h light/dark cycle, 34 °C with the light intensity of 200 µmol·m^{-2}·s^{-1} and the CO_2 concentration of2%, v/v, described as optimal concentration for strain CC-1690 mt+[10]. These conditions had been previously optimized and validated using various cell cycle parameters[10]. **Figure 1** displays cell size distribution measured with Coulter Counter at distinct time points of synchronized cultures. A shift in the cell volume can be observed as the cells grow in size throughout light phase, followed by the release of daughter cells starting at the end of light phase from 10 h. Once all the daughter cells are released, shift in the cell volume can be observed as the newly released daughter cells are disposed to begin the next cycle [10] (**Figure 1**).

Sample-harvesting, -handling and –extraction

Rapid harvesting of samples is carried out using centrifugation and after discarding the supernatant, the pellets can be stored at -80 °C until extraction. As described above (step 5), MTBE extraction results in three distinct phases: a) organic phase was used to measure lipids as well as chlorophyll levels (normalization factor), b) polar phase was collected to measure metabolites on GCMS while, c) the pellet was used to measure starch content and proteins. An overview of the distribution of different phases and their employment is illustrated in **Figure 2**.

Polar and non-polar metabolites

Based on the GCMS analysis of the polar fraction, 65 metabolites were annotated, covering amino acids, nucleic acids, intermediates of glycolysis, gluconeogenesis, tricarboxylic acid cycle, pentose phosphate pathway and polyamines (**Figure 3A**). The LCMS analysis of neutral phase containing lipids led to the identification of 204 distinct lipid species covering various lipid classes namely phosphatidylglycerols, phosphatidylethanolamine, sulfoquinovosyl diacylglycerols, monogalactosyldiacylglycerols, digalactosyldiacylglycerols, diacylglyceryltrimethylhomoserine, fatty acids, diacylglycerides and triacylglycerides. To visualize the global shifts in the metabolites and lipids across cell cycle, principal component analysis (PCA) was used. The PCA displays a separation of light and dark phases for both metabolomics and lipidomic data. Moreover, a semi-cyclic (partially open circle) can be noticed for both data (**Figure 3C,D**). The partial gap in the circular pattern is attributed to the fact that the samples at 24 h of the cell cycle were collected under dark in contrast to the samples collected in the beginning of cell cycle after 0.25 h of exposure to the light (**Figure 3C,D**).

Protein and starch analysis

To examine the quality of the protein pellet obtained as a result of MTBE extraction, 6 samples were used for proteomic analysis. The quality of the proteomics data obtained by digesting 50 µg protein/sample, was examined using a computational quality control tool –Proteomics quality control (PTXQC)[19], indicating reproducible and high quality of proteomics data obtained from all replicates (**Supplementary Figure 1).** The molecular functional coverage of proteins was examined using REVIGO[20]. An overview of functional enrichment of the 2463 identified proteins (see **Table 2**), is presented in **Figure 4A**. The remaining pellet after protein extraction was used for reproducible quantification of starch as indicated by low standard deviation among various replicates (**Figure 4B**).

FIGURE AND TABLE LEGENDS:

Figure 1: Illustrative example of the changes in the cell volume across different phases of cell cycle in *Chlamydomonas reinhardtii*. The x-axis representing the cell volume while y-axis representing the cell number.

Figure 2: Illustrated workflow for the employment of different phases during multi-omics extraction cell pellets. The figure has been reused from Juppner, J. et al.[10].

Figure 3: Representative example of metabolites and lipids identified using the described protocol. (**A**) Metabolite classes identified by GCMS analysis. (**B**) Lipid species belonging to different classes identified by LCMS analysis. (**C**) Principle component analysis of the metabolite levels across 24 h cell cycle. (**D**) Principle component analysis of the lipids across 24 h cell cycle.

Figure 4: Representative example of the protein and starch data. A) Molecular functional enrichment of the proteins identified using LCMS analysis, treemap drawn using REVIGO [20] B) representative starch data displaying the reproducibility of the protocol.

Supplementary Figure 1: Customized design of the fermenter system for the temperature and aeration controlled synchronous growth of Chlamydomonas cultures. The figure has been reused from Juppner, J. et al.[10].

Supplementary Figure 2: Representative outcome for proteomics data quality. Heatmap plotted using computational PTXQC tool[19].

Table 1: Liquid chromatography of peptide samples, gradient parameters.

Table 2: List of proteins identified after LCMS/MS analysis.

DISCUSSION:

In this article, we illustrated a robust and highly applicable extraction protocol for comprehensive lipidomics, metabolomics, starch and proteomics analysis from a single pellet of 10-15 x 10^6 cells. The method has been successfully implemented in several studies for a wide range of cells and tissues[10,14,21-36]. Here, we presented a stepwise pipeline for multi-omics analysis of different biomolecules from a single sample harvested from Chlamydomonas *reinhardtii* (CC-1690 mt+) culture.

The protocol provides a robust and reproducible approach to process multiple samples at once, for the analysis of various biomolecules. However, a number of critical steps should be taken care off in order to minimize the technical variation. Firstly, harvesting of the cells should be done as swiftly as possible while maintaining the uniform conditions for all harvested samples to preserve the biological state of the cells. Though we used centrifugation to harvest the cells, alternate harvesting strategies can be used for harvesting of the samples. However, it is important to note that different harvesting strategies are known to influence the metabolic state of the cells[37] hence, consistent harvesting approach must be used for all experimental samples. Secondly, it is important to avoid drying of the upper non-polar phase containing chlorophyll, since this can

influence the levels of dissolved chlorophyll in the solvent affecting the normalization factor for the samples. Finally, care should be taken while removing the remaining polar phase to obtain the protein and starch pellet, to avoid disturbing the pellet which can influence the starch and protein content.

Thereby presented extraction protocol offers several benefits for multiple-omics data analysis. Besides minimizing the number of sample aliquots required, it also reduces the variation between the analytical results obtained for different biomolecules. This allows direct comparison of the results obtained from the primary metabolites, lipids and proteomic data. Similarly, the simultaneous extraction of multiple compound classes allows consistent and uniform normalization strategy of the different data sets. This is especially applicable if normalization is hard to achieve using dry or fresh weight[38] or cell number.

The protocol can be implemented for routine screening of a complex biological sample. These holistic metabolomic, lipidomic and proteomic data sets can offer comprehensive information about systematic changes in the metabolism. Additionally, the data obtained from the proteomics analysis, provides insights into the quantitative (abundance) and qualitative (modifications) changes in proteins in relation to the metabolites. Hence, integrating omics data could reveal in-depth information about changes induced by genetic or biotic and/or abiotic perturbations of a biological system. Thus, elucidating molecular changes of specific metabolic pathways or cellular processes. Similarly, these high-throughput data can allow identification of targets for the metabolic engineering and refine or test predictions from genome-scale metabolic models[37,39].

ACKNOWLEDGMENTS:
We are very grateful to Gudrun Wolter and Änne Michaelis for excellent technical assistance. We would like to thank all the members of the Giavalisco lab for their help.

DISCLOSURES:
The authors have no disclosures.

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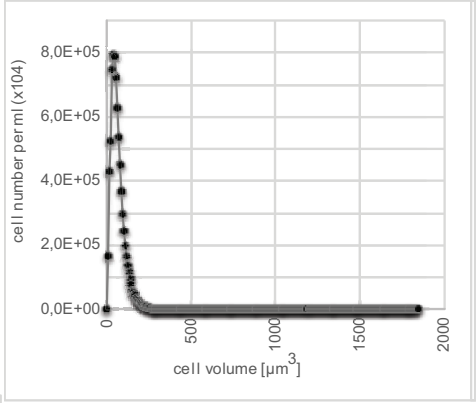

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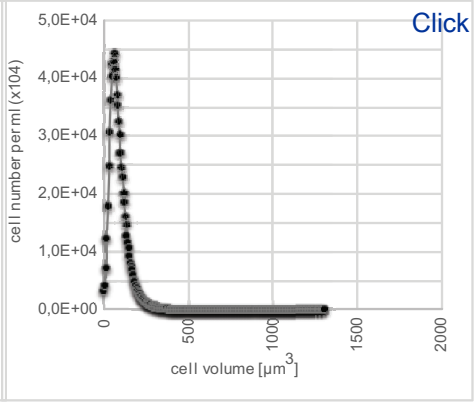

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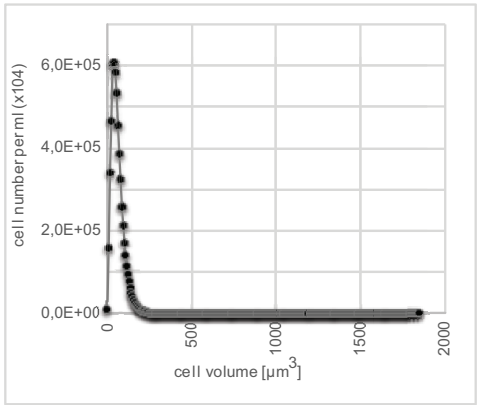

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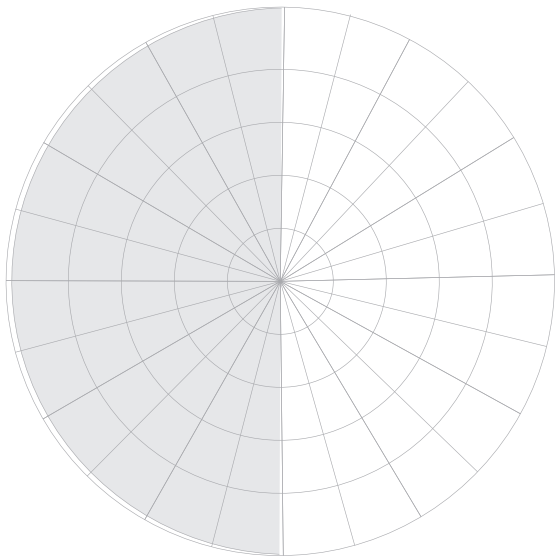

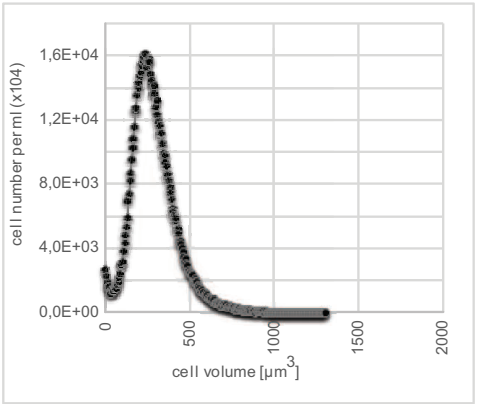

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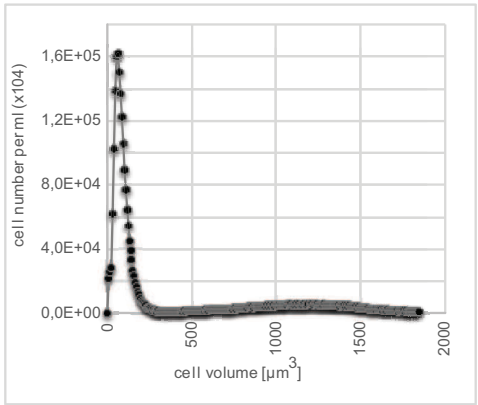

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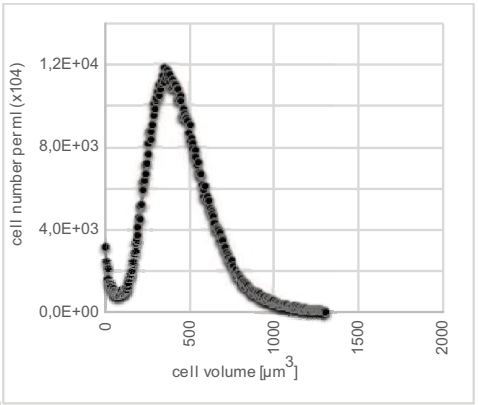

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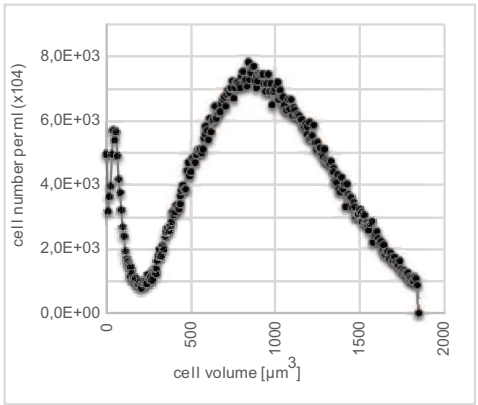

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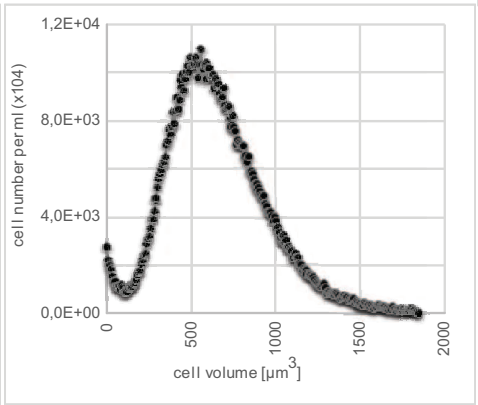

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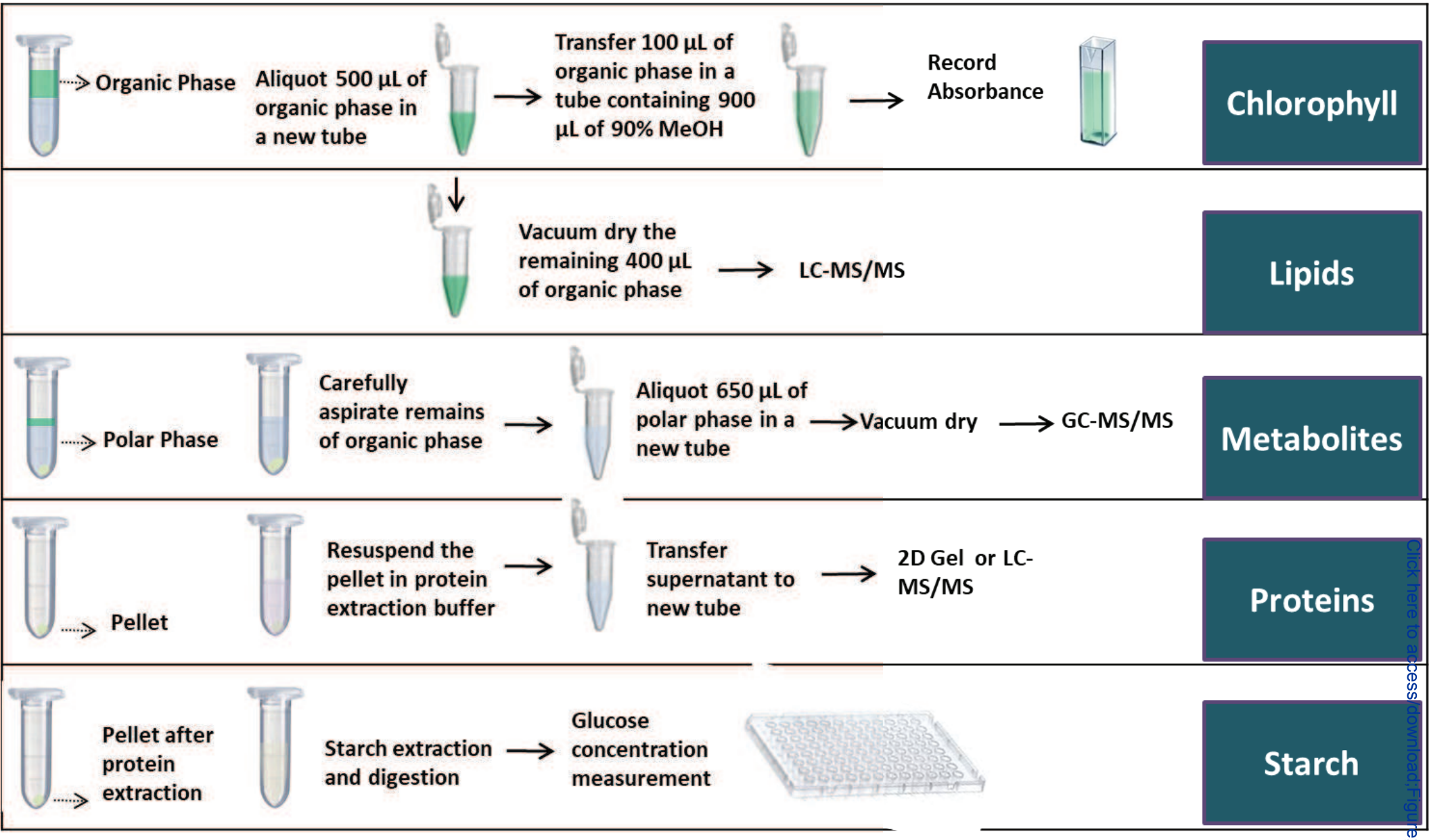

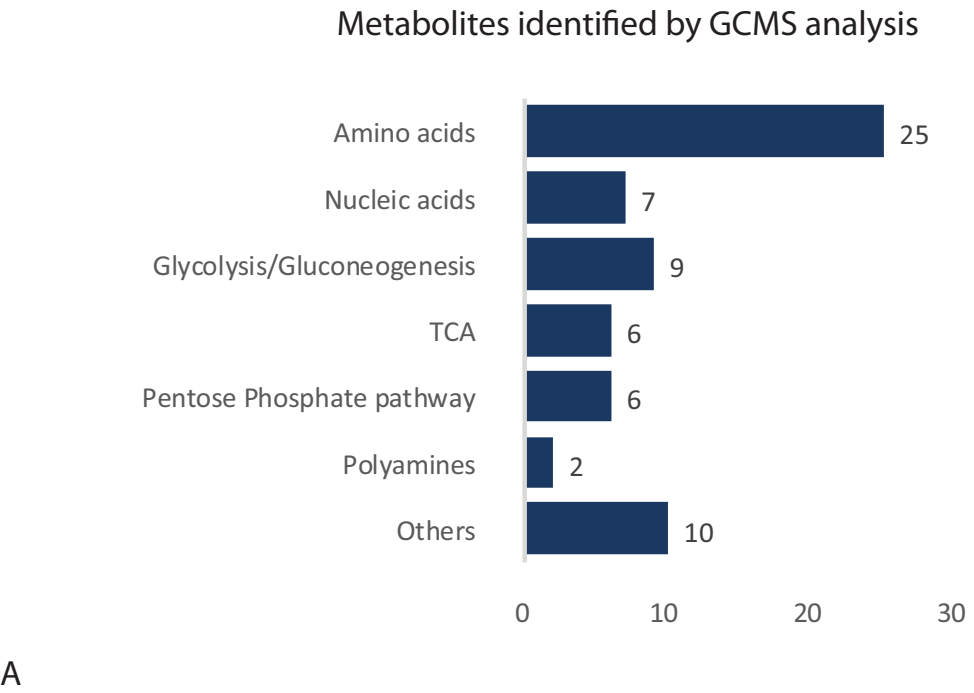

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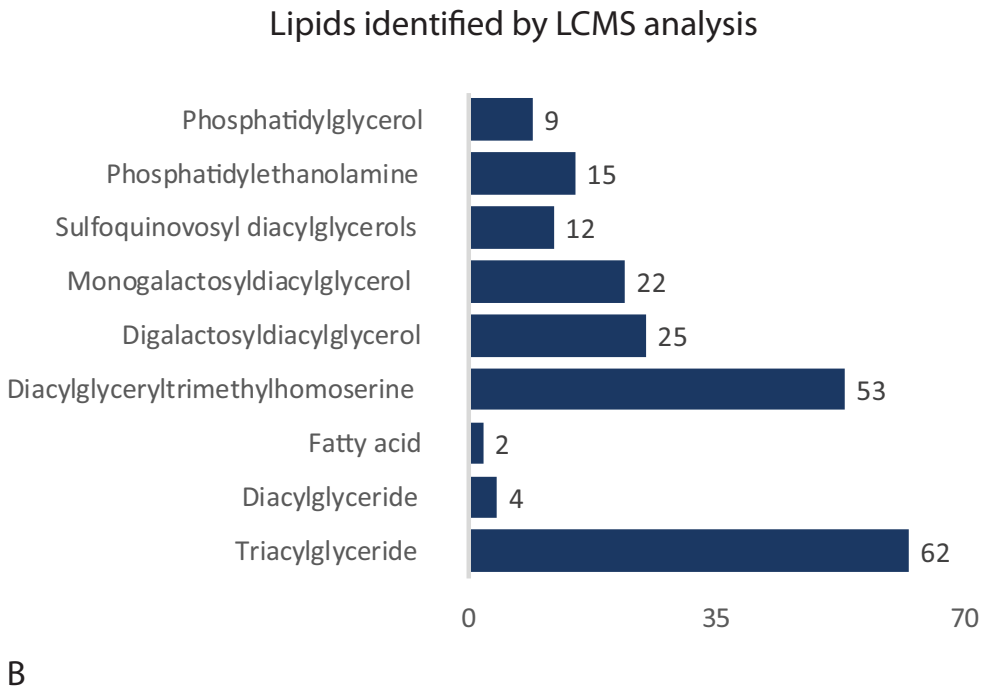

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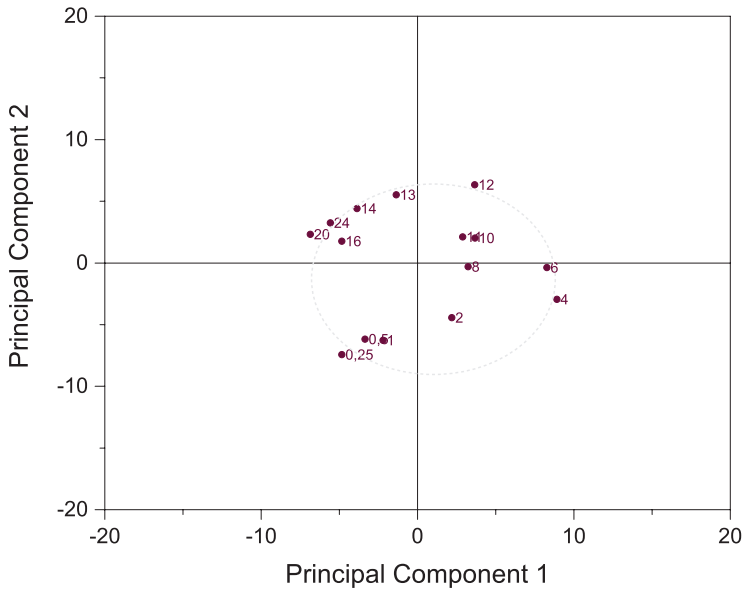

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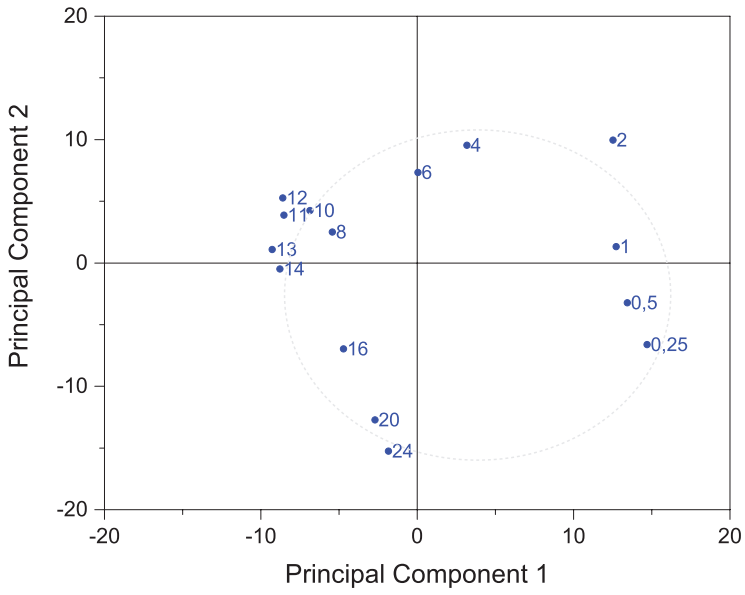
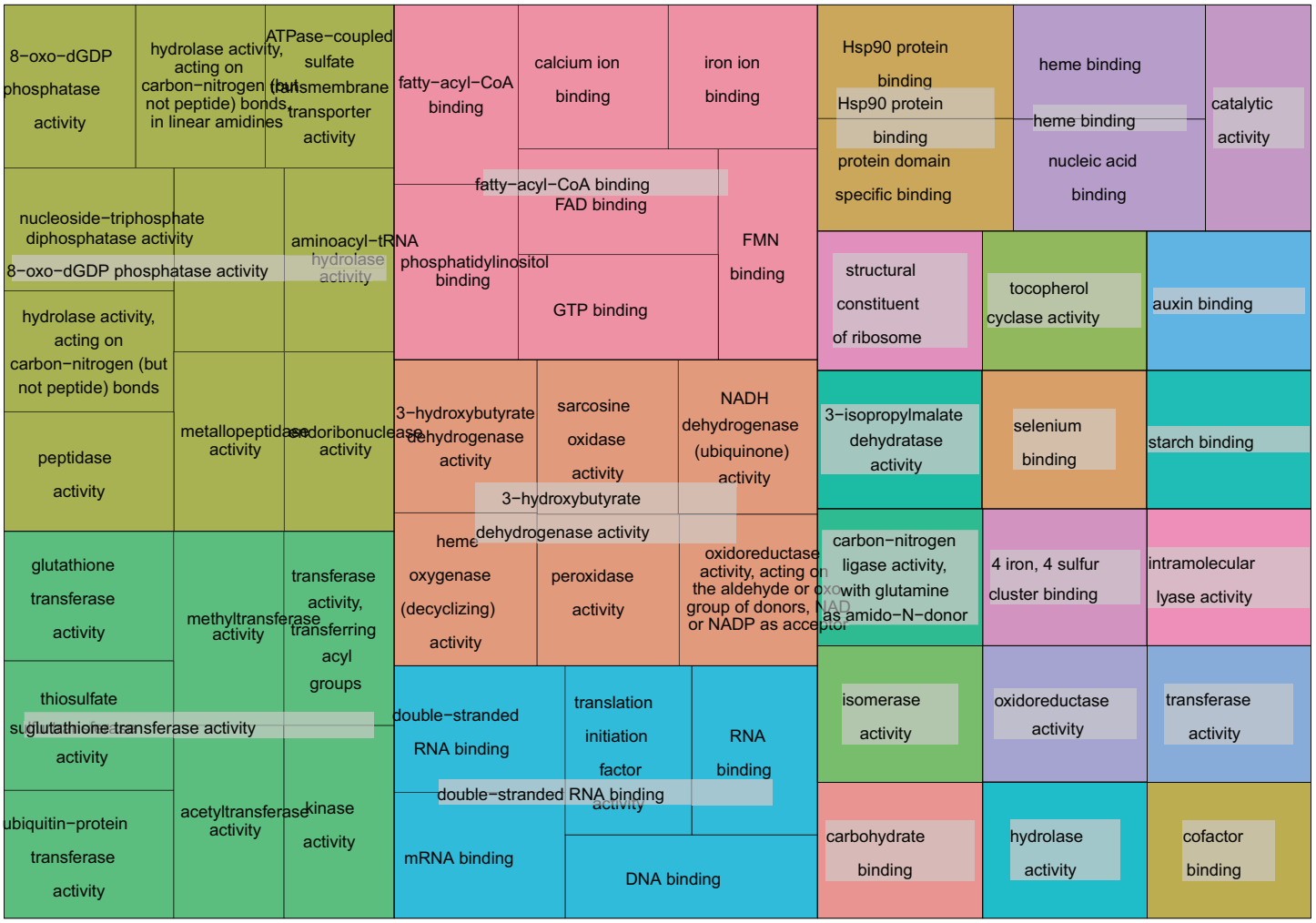


D

Molecular functional enrichment of the proteins identified by LCMS analysis



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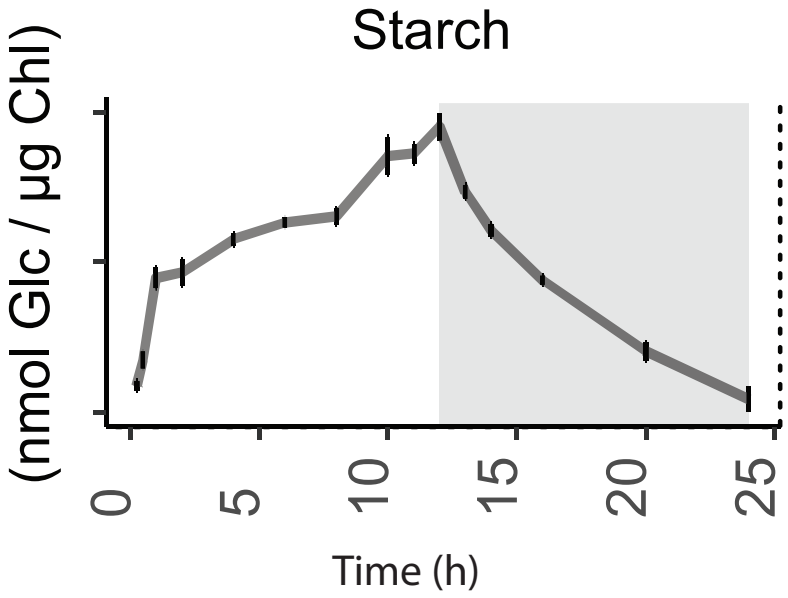

B

Supplementary figure 1

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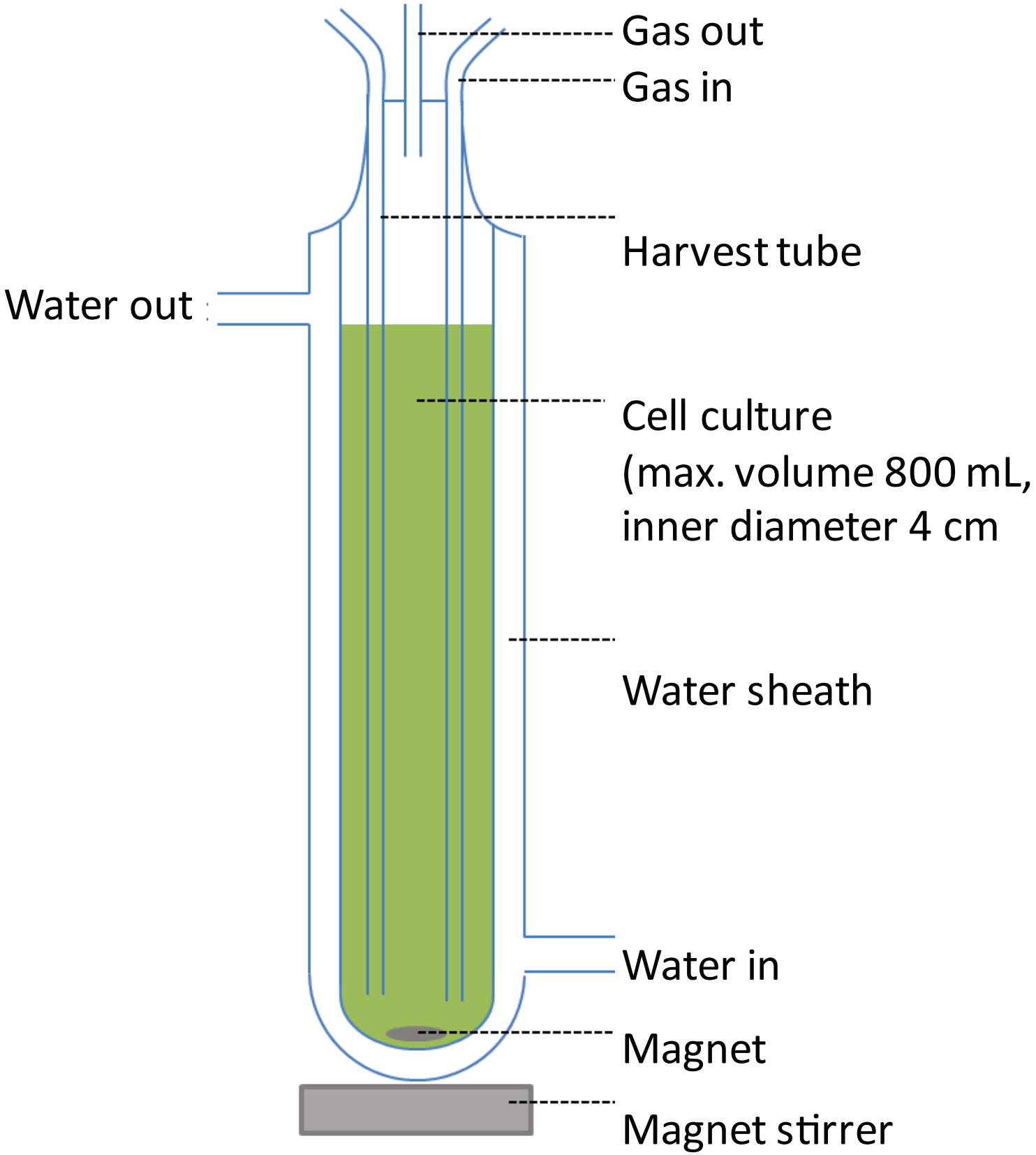

Supplementary figure 2

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Table 1: Gradient parameters	
Time (min)	**% Buffer B to Buffer A**
0 to 15 min	Linear gradient from 0 to3%
15 to 75 min	Linear gradient from 3% to 30%
75 to 90 min	Linear gradient from 30% to 40%
90 to 94 min	Linear gradient from 40% to 90%
94 to104 min	wash column with 90%
105 to 120 min	Equilibrate the column for 15 min at 3%

for nUPLC separation of peptides
Buffer A: 0.1% formic acid in UPLC grade water
Buffer B: 0.1% formic acid in 60% UPLC grade acetonitrile
Flow rate 300 nL/min
Injection volume 4 µL

Table 2: List of proteins identified after

Identifier	Description	Protein	Peptides	Razor + uni	Unique pep	Mol. weigh	Sequence l
Cre01.g000350.t1.1	(1 of 1) 1.1	Cre01.g000	12	12	12	43.102	419
Cre01.g000900.t1.2	Predicted l	Cre01.g000	11	11	11	50.844	488
Cre01.g001100.t1.2	NA	Cre01.g001	11	11	11	69.963	681
Cre01.g001550.t1.1	(1 of 1) K02	Cre01.g001	2	2	2	47.259	465
Cre01.g001750.t1.2	Chloroplast	Cre01.g001	18	18	18	60.329	548
Cre01.g002300.t1.2	Peptidyl-pr	Cre01.g002	11	11	11	18.38	172
Cre01.g002400.t1.1	(1 of 1) PTH	Cre01.g002	2	2	2	24.659	229
Cre01.g002451.t1.1	(1 of 18) PT	Cre01.g002	2	2	2	34.467	339
Cre01.g002500.t1.2	Chlamyops	Cre01.g002	19	19	19	26.577	243
Cre01.g003300.t1.2	(1 of 2) PTH	Cre01.g003	1	1	1	40.482	383
Cre01.g003376.t1.1	(1 of 1) K09	Cre01.g003	1	1	1	82.444	760
Cre01.g004124.t2.1	(1 of 28) PT	Cre01.g004	1	1	1	266.19	2505
Cre01.g004250.t1.2	Flagellar in	Cre01.g004	2	2	2	12.668	114
Cre01.g004300.t1.2	Asparagine	Cre01.g004	23	23	23	64.898	578
Cre01.g004350.t1.2	(1 of 1) K12	Cre01.g004	1	1	1	97.25	893
Cre01.g004450.t1.2	Membrane	Cre01.g004	8	8	8	29.807	270
Cre01.g004500.t1.2	Isopropylm	Cre01.g004	12	12	12	52.803	487
Cre01.g004900.t1.2	(1 of 3) PTH	Cre01.g004	20	20	17	23.603	227
Cre01.g004950.t1.1	(1 of 2) 4.2	Cre01.g004	16	13	13	24.329	229
Cre01.g005050.t1.1	(1 of 4) K06	Cre01.g005	4	4	4	96.717	870
Cre01.g005150.t1.1	Serine glyo	Cre01.g005	12	12	12	48.791	448
Cre01.g005200.t1.1	(1 of 3) PTH	Cre01.g005	1	1	1	111.24	1044
Cre01.g005813.t1.2	NA	Cre01.g005	3	3	3	70.392	662
Cre01.g005850.t1.2	Cobalamin	Cre01.g005	3	3	3	20.648	187
Cre01.g006950.t2.1	Fructose-1,	Cre01.g006	12	12	12	42.063	391
Cre01.g007400.t1.1	NA	Cre01.g007	1	1	1	38.936	397
Cre01.g007600.t2.1	(1 of 2) 5.5	Cre01.g007	4	4	4	27.731	260
Cre01.g007700.t1.1	(1 of 1) 3.4	Cre01.g007	11	11	11	62.264	617
Cre01.g007774.t1.1	(1 of 18) KC	Cre01.g007	2	2	2	71.135	734
Cre01.g007850.t1.2	Predicted p	Cre01.g007	3	3	3	17.092	149
Cre01.g007950.t1.1	Cytochrom	Cre01.g007	10	10	10	43.851	400
Cre01.g010400.t1.2	NA	Cre01.g010	1	1	1	20.398	187
Cre01.g010832.t1.1	(1 of 1) 3.4	Cre01.g010	1	1	1	66.29	620
Cre01.g010848.t1.1	(1 of 1) K06	Cre01.g010	2	2	2	26.856	248
Cre01.g010900.t1.2	Glyceraldel	Cre01.g010	35	35	35	40.304	374
Cre01.g011000.t1.2	Ribosomal	Cre01.g011	20	20	20	24.371	223
Cre01.g011300.t1.1	(1 of 3) K09	Cre01.g011	3	3	3	56.087	523
Cre01.g011500.t1.2	26S protea	Cre01.g011	2	2	2	34.031	310
Cre01.g012150.t1.2	Peptide me	Cre01.g012	6	6	6	36.514	337
Cre01.g012350.t1.2	(1 of 1) K02	Cre01.g012	4	4	4	153.73	1513
Cre01.g012450.t1.1	(1 of 1) PTH	Cre01.g012	2	2	2	544.29	5547
Cre01.g012600.t1.1	Phosphogl	Cre01.g012	2	2	2	70.012	662
Cre01.g013600.t1.1	NA	Cre01.g013	3	3	3	161.57	1599
Cre01.g013700.t2.1	(1 of 2) K15	Cre01.g013	12	12	12	28.153	280
Cre01.g013801.t1.2	(1 of 1) 5.5	Cre01.g013	1	1	1	50.513	469
Cre01.g014050.t1.2	(1 of 1) PTH	Cre01.g014	9	9	9	45.503	408
Cre01.g014350.t1.2	Peroxiredo	Cre01.g014	9	9	9	20.972	194
Cre01.g014500.t1.1	(1 of 1) PF0	Cre01.g014	1	1	1	119.04	1180

Cre01.g015000.t1.2	Acetylgluta	Cre01.g015	7	7	7	35.972	340
Cre01.g015350.t1.1	Light-depe	Cre01.g015	25	25	25	41.871	397
Cre01.g015600.t1.1	(1 of 1) PTH	Cre01.g015	8	8	8	281.61	2709
Cre01.g015950.t1.2	Translation	Cre01.g015	3	3	3	29.702	278
Cre01.g016300.t1.1	(1 of 61) PF	Cre01.g016	7	7	7	36.17	328
Cre01.g016500.t1.1	Dihydrolipc	Cre01.g016	1	1	1	43.089	469
Cre01.g016514.t1.1	(1 of 2) 1.8.	Cre01.g016	18	18	18	60.796	585
Cre01.g016528.t1.1	(1 of 1) 4.2.	Cre01.g016	2	2	2	53.308	500
Cre01.g016556.t1.1	(1 of 1) K03	Cre01.g016	2	2	2	31.301	284
Cre01.g016900.t1.2	(1 of 1) PF1	Cre01.g016	2	2	2	16.486	161
Cre01.g017300.t1.2	Plastid ribo	Cre01.g017	1	1	1	20.724	184
Cre03.g157751.t1.1	(1 of 11) PF	Cre03.g157	1	1	1	107.05	1000
Cre06.g301350.t1.1	NA	Cre06.g301	5	5	5	85.583	845
Cre01.g018850.t1.2	(1 of 4) K12	Cre01.g018	1	1	1	46.147	441
Cre01.g019250.t1.2	Putative dT	Cre01.g019	16	16	16	43.179	384
Cre01.g020350.t1.2	Succinate c	Cre01.g020	1	1	1	21.659	203
Cre01.g020918.t1.1	(1 of 1) PTH	Cre01.g020	27	27	27	117.28	1088
Cre01.g020950.t1.2	(1 of 1) K14	Cre01.g020	6	6	6	42.152	406
Cre01.g021251.t1.1	(1 of 1) 4.3.	Cre01.g021	19	19	19	55.694	508
Cre01.g021600.t1.2	(1 of 1) PTH	Cre01.g021	4	4	4	66.394	623
Cre01.g021650.t1.2	NA	Cre01.g021	1	1	1	34.115	324
Cre01.g022500.t1.2	NADP mali	Cre01.g022	7	7	7	81.992	824
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Cre01.g023350.t1.1	Oligoendop	Cre01.g023	26	26	26	73.277	669
Cre01.g023787.t1.1	(1 of 3) PTH	Cre01.g023	1	1	1	45.996	412
Cre01.g024150.t1.2	NA	Cre01.g024	2	2	2	41.055	359
Cre01.g024251.t1.2	(1 of 1) PF0	Cre01.g024	1	1	1	122.52	1182
Cre01.g024350.t1.2	(1 of 2) PTH	Cre01.g024	2	2	2	69.967	605
Cre01.g025100.t1.1	(1 of 1) PTH	Cre01.g025	2	2	2	44.124	425
Cre01.g025250.t1.1	Riboflavin k	Cre01.g025	3	3	3	42.127	390
Cre01.g025450.t1.2	Flagellar As	Cre01.g025	1	1	1	46.397	406
Cre01.g026450.t1.2	Serine/argi	Cre01.g026	11	11	11	35.215	338
Cre01.g026550.t1.1	T-complex	Cre01.g026	9	9	9	61.426	567
Cre01.g026600.t1.2	(1 of 1) K10	Cre01.g026	5	5	5	17.773	158
Cre01.g027000.t1.2	Ribosomal	Cre01.g027	13	13	13	20.474	178
Cre01.g027050.t1.1	(1 of 2) PTH	Cre01.g027	1	1	1	16.384	146
Cre01.g027150.t1.1	DEAD/DEA	Cre01.g027	1	1	1	127.46	1193
Cre01.g027550.t1.1	Cytochrom	Cre01.g027	1	1	1	41.742	381
Cre01.g027800.t1.2	Vacuolar A	Cre01.g027	7	7	7	52.969	463
Cre01.g027950.t1.2	Intraflagell	Cre01.g027	5	5	5	71.54	641
Cre01.g028101.t1.1	NA	Cre01.g028	4	4	4	16.13	167
Cre01.g028250.t1.2	Putative lys	Cre01.g028	1	1	1	35.377	338
Cre01.g028350.t1.1	DegP-type	Cre01.g028	3	3	3	44.18	436
Cre01.g028600.t1.2	(1 of 8) 1.1.	Cre01.g028	1	1	1	26.494	264
Cre01.g028650.t1.2	NA	Cre01.g028	1	1	1	84.209	811
Cre01.g028850.t1.2	(1 of 10) KC	Cre01.g028	4	4	4	18.124	176
Cre01.g029300.t1.2	Triose phos	Cre01.g029	14	14	14	30.052	282
Cre01.g029650.t1.1	Subunit of	Cre01.g029	2	2	2	100.13	933
Cre01.g029750.t1.1	ODA5-asso	Cre01.g029	13	13	13	187.57	1747

Cre01.g029900.t1.2	(1 of 2) 3.6.	Cre01.g029	1	1	1	155.42	1522
Cre01.g030050.t1.2	Plastid ribo	Cre01.g030	1	1	1	12.958	124
Cre01.g030250.t1.2	(1 of 1) 3.1.	Cre01.g030	1	1	1	36.733	347
Cre01.g030550.t1.2	(1 of 1) PTH	Cre01.g030	1	1	1	50.824	459
Cre01.g030800.t1.2	COP9 signa	Cre01.g030	1	1	1	51.047	442
Cre01.g030950.t1.1	(1 of 1) K15	Cre01.g030	1	1	1	19.319	176
Cre01.g031100.t1.2	Predicted p	Cre01.g031	11	11	11	37.03	334
Cre01.g031300.t1.1	(1 of 5) PTH	Cre01.g031	1	1	1	158.18	1603
Cre01.g031951.t1.1	NA	Cre01.g031	1	1	1	267.78	2687
Cre01.g032250.t1.1	(1 of 1) PTH	Cre01.g032	1	1	1	53.977	496
Cre01.g032300.t1.2	G-strand te	Cre01.g032	28	28	28	24.06	221
Cre01.g032450.t1.2	(1 of 4) K06	Cre01.g032	1	1	1	135	1315
Cre01.g032650.t2.1	Transaldola	Cre01.g032	2	2	2	42.435	382
Cre01.g032700.t1.2	Glucokinas	Cre01.g032	2	2	2	40.8	381
Cre01.g033400.t1.2	Mitochond	Cre01.g033	2	2	2	11.506	103
Cre01.g033550.t1.2	Protein disu	Cre01.g033	13	13	13	27.35	254
Cre01.g034000.t1.2	Importin be	Cre01.g034	10	10	10	97.336	896
Cre01.g034050.t1.2	(1 of 1) PTH	Cre01.g034	2	2	2	44.376	410
Cre01.g034400.t1.1	(1 of 2) 3.1.	Cre01.g034	15	15	15	38.936	370
Cre01.g034451.t1.1	(1 of 1) K14	Cre01.g034	1	1	1	31.353	297
Cre01.g034950.t1.2	(1 of 1) K06	Cre01.g034	2	2	2	82.474	740
Cre01.g035350.t1.2	(1 of 1) K07	Cre01.g035	13	13	13	36.323	352
Cre01.g036400.t1.2	(1 of 1) 1.1.	Cre01.g036	1	1	1	26.846	250
Cre01.g037300.t3.1	NA	Cre01.g037	1	1	1	34.012	333
Cre01.g037850.t1.1	Acetyl-CoA	Cre01.g037	5	5	5	24.308	231
Cre01.g038400.t1.2	Calreticulin	Cre01.g038	21	21	21	47.327	420
Cre01.g038850.t1.1	(1 of 1) PTH	Cre01.g038	5	5	5	128.45	1260
Cre01.g039250.t2.1	Ribosomal	Cre01.g039	12	12	12	31.676	286
Cre01.g039300.t1.2	Polyadenyl	Cre01.g039	25	25	25	69.973	657
Cre01.g040000.t1.2	Ribosomal	Cre01.g040	12	12	12	16.473	145
Cre01.g041000.t1.1	(1 of 1) KO(	Cre01.g041	1	1	1	13.603	124
Cre01.g042200.t1.1	NA	Cre01.g042	2	2	2	10.14	99
Cre01.g042750.t1.2	Aconitate h	Cre01.g042	31	31	31	89.146	828
Cre01.g042800.t1.2	3,8-divinyl	Cre01.g042	5	5	5	44.621	415
Cre01.g043450.t1.2	NA	Cre01.g043	5	5	5	22.292	204
Cre01.g043650.t1.1	Outer arm	Cre01.g043	1	1	1	90.026	921
Cre01.g044600.t1.2	(1 of 2) PF1	Cre01.g044	3	3	3	143.41	1441
Cre01.g044700.t1.2	(1 of 1) PTH	Cre01.g044	2	2	2	52.631	480
Cre01.g044800.t1.2	Pyruvate-fo	Cre01.g044	45	45	45	91.104	830
Cre01.g045350.t1.2	Flagellar As	Cre01.g045	2	2	2	43.501	390
Cre01.g045550.t1.2	Triose phos	Cre01.g045	1	1	1	42.993	406
Cre01.g045600.t1.1	Speract/sca	Cre01.g045	4	4	4	70.851	665
Cre01.g045902.t1.1	(1 of 1) PTH	Cre01.g045	1	1	1	58.403	560
Cre01.g046652.t1.1	(1 of 3) K01	Cre01.g046	8	8	8	26.935	250
Cre01.g047700.t1.2	Peptidyl-pr	Cre01.g047	2	2	2	40.227	377
Cre01.g047750.t1.2	Ribosomal	Cre01.g047	11	11	11	21.371	182
Cre01.g047800.t1.1	Glutaredox	Cre01.g047	2	2	2	30.463	281
Cre01.g047950.t1.1	Intraflagell	Cre01.g047	1	1	1	22.76	204
Cre01.g048750.t1.2	Pentatricho	Cre01.g048	3	3	3	24.349	221
Cre01.g048950.t1.2	Uridine 5'-	Cre01.g048	8	8	8	55.128	514

Cre01.g049000.t1.2	Pterin deh	Cre01.g049	7	7	7	23.613	216
Cre01.g049500.t1.2	Cytochrom	Cre01.g049	5	5	5	17.25	153
Cre01.g049826.t1.1	(1 of 70) PF	Cre01.g049	3	3	3	264.55	2645
Cre01.g050100.t1.2	Diaminopir	Cre01.g050	10	10	10	51.577	473
Cre01.g050150.t1.1	(1 of 1) 1.6.	Cre01.g050	3	3	3	43.976	410
Cre01.g050550.t1.2	(1 of 1) PF0	Cre01.g050	5	5	5	10.513	96
Cre01.g050850.t2.1	Protein Phc	Cre01.g050	4	4	4	95.518	885
Cre01.g050950.t1.2	(1 of 1) 1.3.	Cre01.g050	31	31	31	55.608	504
Cre01.g051000.t1.1	(1 of 1) PTH	Cre01.g051	2	2	2	52.178	492
Cre01.g051100.t1.2	(1 of 1) K06	Cre01.g051	2	2	2	73.643	684
Cre01.g051500.t1.2	Uncharacte	Cre01.g051	4	4	4	11.982	117
Cre01.g051900.t1.2	Rieske iron	Cre01.g051	4	4	4	28.511	262
Cre01.g052000.t1.2	(1 of 1) PTH	Cre01.g052	2	2	2	52.159	495
Cre01.g052100.t1.2	Plastid ribo	Cre01.g052	5	5	5	15.789	145
Cre01.g052250.t1.2	Thioredoxi	Cre01.g052	10	10	10	15.828	145
Cre01.g053150.t2.1	Glycerol-3-	Cre01.g053	1	1	1	72.575	674
Cre01.g054150.t1.2	NADPH-de	Cre01.g054	4	4	4	56.965	536
Cre01.g054500.t1.2	(1 of 1) 1.6.	Cre01.g054	7	7	7	112.35	1094
Cre01.g054700.t1.2	NA	Cre01.g054	2	2	2	35.805	337
Cre01.g054850.t1.2	NA	Cre01.g054	3	3	3	25.087	228
Cre01.g055151.t1.1	NA	Cre01.g055	1	1	1	30.876	308
Cre01.g055400.t1.2	(1 of 1) PTH	Cre01.g055	2	2	2	39.884	360
Cre01.g055408.t1.1	(1 of 3) K01	Cre01.g055	10	10	10	76.676	699
Cre01.g055428.t1.1	(1 of 18) PT	Cre01.g055	1	1	1	40.615	405
Cre01.g055453.t1.1	Acetolactat	Cre01.g055	11	11	11	52.898	492
Cre01.g055461.t1.1	NA	Cre01.g055	1	1	1	16.957	168
Cre01.g055600.t1.1	(1 of 2) K10	Cre01.g055	1	1	1	255.22	2530
Cre01.g056331.t1.1	(1 of 1) K03	Cre01.g056	10	10	10	20.757	196
Cre01.g056696.t2.1	NA	Cre01.g056	1	1	1	117.96	1139
Cre01.g058886.t1.1	(1 of 1) K06	Cre01.g058	5	5	5	44.662	400
Cre01.g061077.t1.1	(1 of 1) PTH	Cre01.g061	11	11	11	29.212	273
Cre01.g062172.t1.1	Histone H2	Cre01.g062	7	1	1	13.296	121
Cre01.g063997.t2.1	(1 of 1) PTH	Cre01.g063	1	1	1	108.56	1130
Cre01.g066552.t1.1	Thioredoxi	Cre01.g066	4	4	4	18.245	173
Cre01.g066917.t1.1	Chlorophyll	Cre01.g066	8	6	6	27.565	256
Cre01.g069472.t1.1	(1 of 2) 6.1.	Cre01.g069	4	4	4	67.182	635
Cre01.g071662.t1.1	Acetyl-CoA	Cre01.g071	3	3	3	69.089	631
Cre02.g073550.t1.2	(1 of 1) PTH	Cre02.g073	16	16	16	39.4	350
Cre02.g073650.t2.1	Spliceosom	Cre02.g073	6	6	6	53.945	503
Cre02.g073700.t2.1	Uroporphy	Cre02.g073	9	9	9	43.718	398
Cre02.g073750.t1.2	Kinesin mo	Cre02.g073	2	2	2	82.996	776
Cre02.g073850.t1.2	Predicted p	Cre02.g073	1	1	1	22.635	209
Cre02.g074100.t1.2	(1 of 4) PTH	Cre02.g074	1	1	1	14.845	142
Cre02.g074150.t2.1	Chlamoyps	Cre02.g074	4	4	4	153.78	1437
Cre02.g074650.t1.2	(1 of 1) PTH	Cre02.g074	3	3	3	70.448	688
Cre02.g075700.t1.2	Ribosomal	Cre02.g075	14	14	14	23.427	200
Cre02.g076100.t1.1	(1 of 36) PT	Cre02.g076	1	1	1	247.41	2488
Cre02.g076250.t1.1	Chloroplast	Cre02.g076	38	38	38	85.356	776
Cre02.g076300.t1.1	Uroporphy	Cre02.g076	4	4	4	37.669	344
Cre02.g076350.t1.2	Vacuolar A	Cre02.g076	30	30	30	55.798	504

Cre02.g076900.t1.1	cGMP-dep	Cre02.g076	3	3	3	114.77	1027
Cre02.g077100.t1.2	Glutathion	Cre02.g077	9	9	9	54.031	479
Cre02.g077300.t1.2	Nucleolar p	Cre02.g077	14	14	14	33.035	315
Cre02.g077350.t1.2	Histidinol d	Cre02.g077	10	10	10	46.124	434
Cre02.g077401.t1.1	NA	Cre02.g077	3	3	3	59.713	594
Cre02.g077600.t1.2	Flagellar As	Cre02.g077	1	1	1	207.98	1939
Cre02.g077650.t1.2	(1 of 14) 3.	Cre02.g077	1	1	1	18.411	176
Cre02.g077750.t1.2	Flagellar As	Cre02.g077	6	5	5	81.74	773
Cre02.g077800.t1.2	NA	Cre02.g077	7	7	5	86.251	813
Cre02.g077850.t1.2	Flagellar As	Cre02.g077	2	1	1	83.459	783
Cre02.g077951.t1.1	(1 of 13) 3.	Cre02.g077	1	1	1	209.69	2135
Cre02.g078100.t1.1	Eukaryotic	Cre02.g078	9	9	9	176.9	1659
Cre02.g078507.t1.2	(1 of 3) PF1	Cre02.g078	2	2	2	24.374	227
Cre02.g078600.t1.2	Radial spok	Cre02.g078	1	1	1	40.485	378
Cre02.g078650.t1.1	(1 of 2) 3.4	Cre02.g078	2	2	2	55.743	521
Cre02.g079200.t1.2	(1 of 1) PTH	Cre02.g079	1	1	1	21.897	209
Cre02.g079300.t1.2	AAA-ATPas	Cre02.g079	1	1	1	48.605	436
Cre02.g079400.t1.2	(1 of 90) PF	Cre02.g079	1	1	1	15.825	146
Cre02.g079550.t1.2	Dynamin-re	Cre02.g079	6	6	6	91.229	868
Cre02.g079600.t1.2	(1 of 1) PTH	Cre02.g079	11	11	11	48.86	434
Cre02.g079700.t1.2	Aspartate c	Cre02.g079	4	4	4	40.985	372
Cre02.g079800.t1.2	Mitochond	Cre02.g079	2	2	2	16.052	150
Cre02.g080200.t1.2	Transketola	Cre02.g080	44	44	44	77.66	718
Cre02.g080350.t1.1	(1 of 1) K11	Cre02.g080	9	9	9	99.128	945
Cre02.g080650.t1.2	Endoplasm	Cre02.g080	30	28	28	93.119	819
Cre02.g080700.t1.2	Endoplasm	Cre02.g080	36	33	33	72.492	656
Cre02.g080900.t1.2	Peroxiredo	Cre02.g080	1	1	1	24.37	226
Cre02.g081050.t1.2	Flagellar As	Cre02.g081	11	11	11	55.891	529
Cre02.g081250.t1.2	NA	Cre02.g081	41	41	41	78.425	763
Cre02.g081550.t1.2	(1 of 1) K18	Cre02.g081	1	1	1	20.575	182
Cre02.g081600.t1.1	(1 of 7) PTH	Cre02.g081	1	1	1	40.937	370
Cre02.g082250.t1.1	(1 of 1) K0(	Cre02.g082	10	10	9	36.271	358
Cre02.g082500.t1.1	Photosyste	Cre02.g082	11	11	11	14.804	139
Cre02.g082550.t1.2	Zeaxanthin	Cre02.g082	1	1	1	80.959	763
Cre02.g082877.t1.1	(1 of 2) K01	Cre02.g082	1	1	1	72.063	674
Cre02.g083050.t1.1	(1 of 19) PT	Cre02.g083	3	3	3	55.523	551
Cre02.g083065.t1.2	(1 of 2) 3.4	Cre02.g083	1	1	1	58.908	571
Cre02.g083600.t2.1	(1 of 1) PTH	Cre02.g083	7	7	7	45.159	403
Cre02.g083800.t2.1	dTDP-glucc	Cre02.g083	7	7	7	40.714	367
Cre02.g083900.t2.1	(1 of 1) PTH	Cre02.g083	1	1	1	162.53	1650
Cre02.g083950.t1.1	Plastid-spe	Cre02.g083	19	19	19	33.366	298
Cre02.g084000.t1.2	NA	Cre02.g084	4	4	4	12.964	120
Cre02.g084600.t1.2	NA	Cre02.g084	1	1	1	33.97	327
Cre02.g084650.t1.2	(1 of 2) PTH	Cre02.g084	1	1	1	141.49	1377
Cre02.g084750.t2.1	(1 of 1) PTH	Cre02.g084	2	2	2	81.646	801
Cre02.g085450.t1.2	Coproporpl	Cre02.g085	16	16	16	41.426	365
Cre02.g085900.t1.2	(1 of 2) K01	Cre02.g085	6	6	6	35.565	329
Cre02.g085950.t1.2	(1 of 1) PTH	Cre02.g085	3	3	3	25.158	236
Cre02.g086600.t1.2	(1 of 8) PF1	Cre02.g086	10	10	10	53.635	490
Cre02.g086700.t1.2	Componen	Cre02.g086	2	2	2	82.352	803

Cre02.g086850.t1.1	NA	Cre02.g086	1	1	1	35.98	354
Cre02.g087150.t1.2	NA	Cre02.g087	6	6	6	57.942	578
Cre02.g087700.t1.2	Ascorbate p	Cre02.g087	18	18	18	35.663	327
Cre02.g087950.t1.2	(1 of 1) PTH	Cre02.g087	9	9	9	104.3	976
Cre02.g088000.t1.2	Prohibitin	Cre02.g088	3	3	3	33.562	307
Cre02.g088200.t1.2	Protein disu	Cre02.g088	51	51	51	58.236	532
Cre02.g088400.t2.1	DegP-type	Cre02.g088	4	4	4	44.391	431
Cre02.g088600.t1.2	ATP citrate	Cre02.g088	4	4	4	64.856	608
Cre02.g088850.t1.2	(1 of 1) 2.5.	Cre02.g088	5	5	5	23.165	224
Cre02.g088900.t1.2	Plastid ribo	Cre02.g088	18	18	18	32.439	297
Cre02.g089100.t1.2	Delta subu	Cre02.g089	4	4	4	55.946	511
Cre02.g089450.t1.2	NA	Cre02.g089	1	1	1	37.756	380
Cre02.g089950.t1.2	Intraflagell	Cre02.g089	2	2	2	15.636	135
Cre02.g090050.t1.1	Flagellar As	Cre02.g090	2	2	2	86.543	856
Cre02.g090150.t1.2	Pantothena	Cre02.g090	3	3	3	23.602	213
Cre02.g090850.t1.1	ClpB chape	Cre02.g090	28	28	28	109.71	1012
Cre02.g091050.t1.2	Delta-amin	Cre02.g091	9	9	9	43.033	390
Cre02.g091100.t1.2	Ribosomal	Cre02.g091	7	7	7	27.157	232
Cre02.g091550.t1.2	(1 of 1) PTH	Cre02.g091	7	7	7	24.873	238
Cre02.g091700.t1.2	Protofilame	Cre02.g091	9	9	9	71.985	635
Cre02.g092150.t1.2	(1 of 1) PTH	Cre02.g092	2	2	2	48.787	442
Cre02.g092400.t1.1	(1 of 1) PTH	Cre02.g092	1	1	1	54.537	537
Cre02.g092600.t1.2	Coproporpl	Cre02.g092	1	1	1	39.064	349
Cre02.g092850.t1.2	Flagellar ou	Cre02.g092	1	1	1	22.15	198
Cre02.g092900.t1.2	GMP synth	Cre02.g092	7	7	7	59.339	535
Cre02.g093300.t1.1	(1 of 1) K12	Cre02.g093	3	3	3	84.517	762
Cre02.g093350.t2.1	NA	Cre02.g093	1	1	1	40.071	371
Cre02.g093450.t1.2	Fructose-1,	Cre02.g093	7	7	7	39.138	370
Cre02.g093650.t1.2	(1 of 1) PTH	Cre02.g093	13	13	13	15.009	145
Cre02.g093750.t1.2	Nucleoredo	Cre02.g093	7	7	6	50.659	470
Cre02.g094100.t1.2	Nucleoredo	Cre02.g094	7	6	6	50.497	468
Cre02.g094450.t1.2	Cell wall pr	Cre02.g094	2	2	2	86.36	819
Cre02.g095069.t1.1	(1 of 1) PTH	Cre02.g095	1	1	1	13.417	128
Cre02.g095089.t1.1	(1 of 2) 3.6.	Cre02.g095	3	3	3	21.409	194
Cre02.g095110.t2.1	(1 of 1) K17	Cre02.g095	2	2	2	7.0479	63
Cre02.g095122.t1.1	Peptidyl-pr	Cre02.g095	2	2	2	20.871	186
Cre02.g095146.t1.1	NA	Cre02.g095	6	6	6	31.339	285
Cre02.g095149.t1.1	Flagellar As	Cre02.g095	1	1	1	29.183	268
Cre02.g095150.t1.2	(1 of 543) 2	Cre02.g095	1	1	1	119.83	1094
Cre02.g095400.t2.1	(1 of 1) K14	Cre02.g095	2	2	2	38.387	357
Cre02.g095500.t1.1	NA	Cre02.g095	3	3	3	75.179	735
Cre02.g096150.t1.2	Mn superoi	Cre02.g096	10	10	10	23.9	218
Cre02.g097200.t1.1	Scavenger r	Cre02.g097	1	1	1	35.318	341
Cre02.g097250.t1.1	(1 of 1) K15	Cre02.g097	1	1	1	119.33	1151
Cre02.g097400.t1.2	Eukaryotic	Cre02.g097	7	7	7	18.074	165
Cre02.g097550.t1.2	(1 of 1) PTH	Cre02.g097	3	3	3	31.224	296
Cre02.g097650.t1.2	26S protea	Cre02.g097	4	4	4	45.912	421
Cre02.g097900.t1.2	Aspartate a	Cre02.g097	18	18	18	47.075	428
Cre02.g098250.t1.2	(1 of 1) PTH	Cre02.g098	5	5	5	36.091	336
Cre02.g098450.t1.2	Putative eu	Cre02.g098	8	8	8	50.068	462

Cre02.g098750.t1.1	(1 of 4) KO(	Cre02.g098	2	2	2	296.49	3006
Cre02.g099150.t1.2	Alpha-SNAI	Cre02.g099	3	3	3	33.726	303
Cre02.g099601.t1.1	(1 of 2) PTH	Cre02.g099	1	1	1	351.33	3589
Cre02.g099850.t1.1	Pyruvate d(	Cre02.g099	23	23	23	51.705	466
Cre02.g100050.t1.2	(1 of 2) PTH	Cre02.g100	2	2	2	52.057	516
Cre02.g100200.t1.2	NADH:ubiq	Cre02.g100	2	2	2	22.321	197
Cre02.g101350.t1.2	Ribosomal	Cre02.g101	15	15	15	23.944	214
Cre02.g101400.t1.2	Clathrin He	Cre02.g101	23	23	23	189.75	1711
Cre02.g101950.t1.2	tRNA (uraci	Cre02.g101	5	5	5	85.44	824
Cre02.g102250.t1.2	Ribosomal	Cre02.g102	15	15	15	20.978	187
Cre02.g103050.t1.2	(1 of 20) PT	Cre02.g103	2	2	2	40.501	385
Cre02.g103400.t1.2	NA	Cre02.g103	2	2	2	187.37	1884
Cre02.g103550.t1.2	Eukaryotic	Cre02.g103	1	1	1	16.455	141
Cre02.g104300.t1.1	NA	Cre02.g104	1	1	1	57.905	541
Cre02.g104650.t2.1	(1 of 1) K14	Cre02.g104	4	4	4	125.57	1184
Cre02.g104900.t1.2	Flagellar As	Cre02.g104	16	16	16	43.725	391
Cre02.g105500.t1.2	Acetylornit	Cre02.g105	7	7	7	48.392	437
Cre02.g105950.t1.2	Flagellar As	Cre02.g105	3	3	3	10.327	93
Cre02.g106550.t1.2	(1 of 1) K12	Cre02.g106	1	1	1	35.652	334
Cre02.g106600.t1.2	Ribosomal	Cre02.g106	11	11	11	16.997	150
Cre02.g106850.t1.2	(1 of 1) PTH	Cre02.g106	6	6	6	33.541	314
Cre02.g107150.t1.1	NA	Cre02.g107	4	4	4	13.66	125
Cre02.g107200.t1.1	NA	Cre02.g107	1	1	1	7.124	63
Cre02.g107300.t1.2	Dihydrodip	Cre02.g107	4	4	4	37.906	349
Cre02.g107400.t3.1	NA	Cre02.g107	1	1	1	128.43	1296
Cre02.g107450.t1.2	ATP-sulfury	Cre02.g107	9	9	9	47.574	429
Cre02.g107750.t1.2	(1 of 4) PF0	Cre02.g107	1	1	1	29.064	273
Cre02.g107950.t1.2	NA	Cre02.g107	1	1	1	21.713	202
Cre02.g108450.t1.2	Flagellar As	Cre02.g108	6	6	6	15.185	139
Cre02.g108850.t1.2	Plastid ribo	Cre02.g108	5	5	5	19.154	173
Cre02.g108900.t1.2	NA	Cre02.g108	2	2	2	19.694	176
Cre02.g109550.t1.2	Homoserin	Cre02.g109	1	1	1	40.338	379
Cre02.g109600.t1.2	Inositol mo	Cre02.g109	5	5	5	35.305	328
Cre02.g110350.t1.2	(1 of 18) PT	Cre02.g110	5	5	5	28.974	278
Cre02.g110700.t1.1	NA	Cre02.g110	1	1	1	323.41	3165
Cre02.g111014.t1.1	(1 of 18) KC	Cre02.g111	1	1	1	142.52	1403
Cre02.g111450.t1.2	Rhodanese	Cre02.g111	11	11	11	26.62	244
Cre02.g111700.t1.2	(1 of 3) PF1	Cre02.g111	3	3	3	22.341	212
Cre02.g111800.t1.2	NA	Cre02.g111	7	7	7	45.549	438
Cre02.g111850.t1.1	(1 of 5) PF0	Cre02.g111	1	1	1	142.59	1489
Cre02.g112600.t1.2	(1 of 3) PTH	Cre02.g112	1	1	1	45.617	442
Cre02.g113100.t1.2	(1 of 1) PTH	Cre02.g113	1	1	1	13.235	116
Cre02.g113200.t1.1	Glutamine	Cre02.g113	19	19	19	54.5	503
Cre02.g113400.t1.2	(1 of 1) PTH	Cre02.g113	5	5	5	34.17	307
Cre02.g113700.t1.2	(1 of 1) PF0	Cre02.g113	1	1	1	33.787	299
Cre02.g113850.t1.1	Porphobilir	Cre02.g113	1	1	1	46.463	441
Cre02.g113950.t1.1	NA	Cre02.g113	1	1	1	45.539	439
Cre02.g114450.t1.2	NA	Cre02.g114	6	6	6	18.964	181
Cre02.g114600.t1.2	2-cys perox	Cre02.g114	17	17	17	21.642	198
Cre02.g115000.t1.1	NA	Cre02.g115	1	1	1	47.131	462

Cre02.g115200.t1.2	Ribosomal	Cre02.g115	12	12	12	16.391	147
Cre02.g116250.t1.1	(1 of 1) PTH	Cre02.g116	2	2	2	20.144	192
Cre02.g116400.t1.1	Flagellar As	Cre02.g116	1	1	1	31.861	294
Cre02.g116500.t1.1	Serine carb	Cre02.g116	2	2	2	56.205	509
Cre02.g116750.t2.1	Mitochond	Cre02.g116	26	26	26	61.514	569
Cre02.g118300.t1.2	DEAD box A	Cre02.g118	3	2	2	77.43	737
Cre02.g118500.t1.1	Beta' subur	Cre02.g118	8	8	8	107.73	982
Cre02.g118750.t1.1	NA	Cre02.g118	3	3	3	65.631	605
Cre02.g118850.t1.2	(1 of 1) K08	Cre02.g118	5	5	5	9.9361	90
Cre02.g118900.t1.2	MYG1/GAN	Cre02.g118	5	5	5	36.532	327
Cre02.g118950.t1.2	Plastid ribo	Cre02.g118	3	3	3	11.744	105
Cre02.g119150.t1.2	(1 of 7) PF0	Cre02.g119	1	1	1	73.642	698
Cre02.g119550.t1.2	NaCl-induc	Cre02.g119	10	10	10	9.9474	87
Cre02.g120100.t1.2	Ribulose-1,	Cre02.g120	9	1	1	20.62	185
Cre02.g120150.t1.2	Ribulose-1,	Cre02.g120	9	9	1	20.647	185
Cre02.g120250.t2.1	Calcium/ca	Cre02.g120	3	3	3	79.655	743
Cre02.g141006.t1.1	NA	Cre02.g141	1	1	1	6.6975	61
Cre02.g141200.t1.2	(1 of 1) 2.4.	Cre02.g141	4	4	4	33.539	320
Cre02.g141400.t1.2	Phosphoen	Cre02.g141	18	18	18	67.536	610
Cre02.g141666.t2.1	(1 of 543) 2	Cre02.g141	1	1	1	84.46	822
Cre02.g141706.t2.1	(1 of 1) K03	Cre02.g141	1	1	1	50.786	456
Cre02.g142126.t1.1	Flagellar As	Cre02.g142	2	2	2	26.609	230
Cre02.g142146.t1.1	(1 of 2) 1.3.	Cre02.g142	12	12	12	40.863	372
Cre02.g142200.t1.2	(1 of 6) PTH	Cre02.g142	2	2	2	26.471	236
Cre02.g142206.t1.1	NA	Cre02.g142	10	10	10	31.7	302
Cre02.g142351.t1.1	(1 of 2) K15	Cre02.g142	2	2	2	91.558	858
Cre02.g142352.t1.1	(1 of 1) 6.1.	Cre02.g142	7	7	7	91.99	912
Cre02.g142650.t1.1	NA	Cre02.g142	2	2	2	96.031	962
Cre12.g486250.t1.2	ARF-like GT	Cre12.g486	3	3	3	20.586	181
Cre02.g142800.t1.2	Thioredoxi	Cre02.g142	6	6	6	19.532	183
Cre02.g142850.t1.2	U6 snRNA-a	Cre02.g142	2	2	2	10.826	100
Cre02.g143000.t1.2	Glycerol-3-	Cre02.g143	3	3	3	45.526	410
Cre02.g143050.t1.2	Acidic ribos	Cre02.g143	10	10	10	10.879	109
Cre02.g143200.t1.1	(1 of 1) PTH	Cre02.g143	28	28	28	121.86	1164
Cre02.g143250.t1.2	Isocitrate d	Cre02.g143	13	13	13	36.841	341
Cre02.g143307.t1.1	ClpC chape	Cre02.g143	1	1	1	5.7086	54
Cre02.g143550.t1.2	Early light-i	Cre02.g143	1	1	1	29.808	280
Cre02.g143650.t2.1	NA	Cre02.g143	6	6	6	57.074	571
Cre02.g143667.t1.1	Plastid lipid	Cre02.g143	6	6	6	42.3	418
Cre02.g144005.t1.1	(1 of 5) 2.3.	Cre02.g144	4	4	4	35.775	333
Cre02.g145000.t1.1	(1 of 1) K02	Cre02.g145	1	1	1	35.167	315
Cre02.g145050.t1.2	4-diphosph	Cre02.g145	2	2	2	37.87	347
Cre02.g145231.t1.2	(1 of 1) K14	Cre02.g145	1	1	1	41.543	363
Cre02.g145250.t1.2	Ribosomal	Cre02.g145	1	1	1	9.5952	86
Cre02.g145800.t1.2	NAD-deper	Cre02.g145	12	12	12	38.114	360
Cre02.g145850.t1.2	Flagellar As	Cre02.g145	1	1	1	53.031	475
Cre02.g146000.t1.2	(1 of 1) K14	Cre02.g146	1	1	1	91.042	870
Cre02.g146700.t1.2	(1 of 1) PTH	Cre02.g146	2	2	2	17.032	174
Cre02.g146950.t1.1	RNA lariat (	Cre02.g146	1	1	1	59.664	571
Cre02.g147302.t1.1	(1 of 1) 2.6.	Cre02.g147	5	5	5	44.588	425

Cre02.g147900.t3.1	Pyruvate ki	Cre02.g147	18	18	2	64.463	600
Cre02.g147900.t4.1	Pyruvate ki	Cre02.g147	17	1	1	60.772	563
Cre03.g143787.t1.1	NA	Cre03.g143	1	1	1	111.07	1061
Cre03.g143887.t1.1	(1 of 1) 6.1.	Cre03.g143	13	13	13	65.212	595
Cre03.g143967.t1.1	NA	Cre03.g143	2	2	2	15.113	132
Cre03.g144444.t1.1	NA	Cre03.g144	1	1	1	29.564	288
Cre03.g144504.t1.1	NA	Cre03.g144	1	1	1	10.375	92
Cre03.g144564.t1.1	Matrix met	Cre03.g144	3	3	3	80.821	756
Cre03.g144627.t1.1	Cystathioni	Cre03.g144	10	10	10	50.733	466
Cre03.g144647.t1.1	NA	Cre03.g144	4	4	4	20.08	186
Cre03.g144667.t1.1	ClpS-like pr	Cre03.g144	2	2	2	26.578	244
Cre03.g144707.t1.1	(1 of 1) 5.4.	Cre03.g144	1	1	1	74.96	745
Cre03.g144767.t1.1	(1 of 2) PF0	Cre03.g144	1	1	1	35.317	339
Cre03.g144807.t1.1	Malate syn	Cre03.g144	6	6	6	60.707	546
Cre03.g144847.t1.1	Pyruvate ki	Cre03.g144	4	2	2	270.25	2523
Cre03.g144967.t1.1	(1 of 1) K17	Cre03.g144	1	1	1	68.773	621
Cre03.g145127.t1.1	Flagellar ou	Cre03.g145	8	8	8	504.37	4503
Cre03.g145227.t1.1	(1 of 1) K12	Cre03.g145	1	1	1	61.423	607
Cre03.g145507.t1.1	NA	Cre03.g145	10	10	10	27.943	261
Cre03.g145727.t1.1	(1 of 1) PTH	Cre03.g145	9	9	9	43.534	388
Cre03.g145747.t1.1	Chorismate	Cre03.g145	13	13	13	43.869	411
Cre03.g145927.t1.1	(1 of 39) PT	Cre03.g145	1	1	1	168.9	1720
Cre03.g145967.t1.1	(1 of 1) PTH	Cre03.g145	6	6	6	45.601	443
Cre03.g146167.t1.1	Predicted p	Cre03.g146	7	7	7	24.851	223
Cre03.g146187.t1.1	N-acetyl-ga	Cre03.g146	17	17	17	41.084	383
Cre03.g146247.t1.1	NADH:ubiq	Cre03.g146	9	9	9	17.392	157
Cre03.g146487.t1.1	Exportin 1 ı	Cre03.g146	2	2	2	122.37	1075
Cre03.g146527.t1.1	Glutamic-g	Cre03.g146	2	2	2	68.737	664
Cre03.g148950.t1.2	Putative or	Cre03.g148	5	5	5	38.479	360
Cre03.g149100.t1.2	Citrate synt	Cre03.g149	4	4	4	54.531	495
Cre03.g149250.t1.2	(1 of 1) 4.1.	Cre03.g149	13	13	13	55.847	542
Cre03.g150300.t1.2	(1 of 10) KC	Cre03.g150	8	8	8	16.263	145
Cre03.g151000.t1.2	Dual-specif	Cre03.g151	3	3	3	47.127	428
Cre03.g151200.t1.2	Predicted p	Cre03.g151	1	1	1	11.821	110
Cre03.g152150.t1.2	NA	Cre03.g152	10	10	10	41.014	413
Cre03.g152900.t1.1	(1 of 18) 3.1	Cre03.g152	1	1	1	51.083	465
Cre03.g154550.t1.1	Pyrroline-5	Cre03.g154	4	4	4	35.95	347
Cre03.g154950.t1.2	(1 of 3) K07	Cre03.g154	1	1	1	40.429	366
Cre03.g155001.t1.1	(1 of 1) PTH	Cre03.g155	2	2	2	115.68	1077
Cre03.g155200.t1.1	Chorismate	Cre03.g155	3	3	3	37.356	347
Cre03.g155250.t1.2	NA	Cre03.g155	2	2	2	81.694	837
Cre03.g155650.t1.2	Clathrin ligl	Cre03.g155	1	1	1	23.845	228
Cre03.g155750.t1.1	(1 of 2) PF0	Cre03.g155	1	1	1	65.208	629
Cre03.g155850.t1.1	NA	Cre03.g155	1	1	1	63.553	615
Cre03.g156050.t1.2	(1 of 2) K02	Cre03.g156	5	5	5	28.631	269
Cre03.g156100.t1.2	(1 of 1) K11	Cre03.g156	1	1	1	88.507	851
Cre03.g156250.t1.2	(1 of 3) PTH	Cre03.g156	2	2	2	22.76	213
Cre03.g156600.t1.2	(1 of 1) PTH	Cre03.g156	5	5	5	31.64	298
Cre03.g156750.t1.2	T-complex	Cre03.g156	9	9	9	59.049	536
Cre03.g156900.t1.2	Chlorophyll	Cre03.g156	9	7	7	28.687	268

Cre03.g156950.t1.1	Ubiquinol:c	Cre03.g156	2	2	2	8.6669	73
Cre03.g157700.t1.2	Cytochrom	Cre03.g157	2	2	2	10.869	96
Cre03.g157950.t1.1	(1 of 19) PT	Cre03.g157	2	2	2	59.856	555
Cre03.g158000.t1.2	Glutamate-	Cre03.g158	23	23	23	49.227	463
Cre03.g158750.t1.1	(1 of 1) PTH	Cre03.g158	12	12	12	61.557	570
Cre03.g158800.t3.1	(1 of 1) 3.1.	Cre03.g158	7	7	7	31.316	288
Cre03.g158900.t1.2	Dihydrolipc	Cre03.g158	23	23	23	49.796	494
Cre03.g160200.t2.1	(1 of 5) PTH	Cre03.g160	1	1	1	27.695	253
Cre03.g160500.t1.2	(1 of 2) 6.1.	Cre03.g160	27	27	27	66.807	591
Cre03.g162000.t1.2	(1 of 6) PTH	Cre03.g162	1	1	1	37.975	346
Cre03.g162150.t1.1	NA	Cre03.g162	1	1	1	207.68	2041
Cre03.g162550.t1.1	(1 of 1) 3.2.	Cre03.g162	1	1	1	24.124	233
Cre03.g162750.t1.2	(1 of 2) K13	Cre03.g162	1	1	1	51.537	503
Cre03.g163700.t1.2	NA	Cre03.g163	3	3	3	86.173	880
Cre03.g164000.t1.2	Predicted p	Cre03.g164	8	8	8	24.228	233
Cre03.g164101.t1.1	(1 of 1) K12	Cre03.g164	1	1	1	11.646	109
Cre03.g164150.t1.1	(1 of 4) KO(	Cre03.g164	2	2	2	35.206	333
Cre03.g164300.t1.2	NA	Cre03.g164	1	1	1	13.326	131
Cre03.g164350.t1.1	(1 of 1) K06	Cre03.g164	4	4	4	24.243	224
Cre03.g164600.t1.2	P-type ATP	Cre03.g164	2	2	2	117.89	1081
Cre03.g164700.t1.2	NA	Cre03.g164	2	2	2	35.584	329
Cre03.g165700.t1.1	Pyruvate d(	Cre03.g165	2	2	2	62.873	580
Cre03.g166050.t1.2	Selenium b	Cre03.g166	23	23	23	52.069	477
Cre03.g167051.t1.2	(1 of 1) K08	Cre03.g167	2	2	2	28.367	264
Cre03.g167250.t1.2	(1 of 1) PF0	Cre03.g167	3	3	3	52.433	499
Cre03.g167450.t1.1	(1 of 21) PF	Cre03.g167	1	1	1	53.432	489
Cre03.g168200.t1.2	Flagellar As	Cre03.g168	1	1	1	114.24	1102
Cre03.g168450.t1.2	T-complex	Cre03.g168	18	18	18	57.53	544
Cre03.g168605.t1.2	(1 of 1) PTH	Cre03.g168	2	2	2	13.942	128
Cre03.g168700.t1.2	Phosphogly	Cre03.g168	4	4	4	33.42	308
Cre03.g169150.t2.1	(1 of 1) K13	Cre03.g169	1	1	1	80.383	802
Cre03.g169400.t1.2	UDP-D-gluc	Cre03.g169	11	11	11	36.841	328
Cre03.g169650.t1.1	NA	Cre03.g169	1	1	1	100.89	1032
Cre03.g169900.t1.2	NA	Cre03.g169	5	5	5	32.849	300
Cre03.g170150.t1.1	(1 of 2) PTH	Cre03.g170	1	1	1	68.064	645
Cre03.g170200.t2.1	(1 of 2) PTH	Cre03.g170	1	1	1	66.383	619
Cre03.g170450.t1.2	NA	Cre03.g170	2	2	2	17.421	157
Cre03.g170550.t1.1	NA	Cre03.g170	2	2	2	95.829	839
Cre03.g171100.t1.1	NA	Cre03.g171	1	1	1	28.079	256
Cre03.g171600.t1.1	(1 of 2) K03	Cre03.g171	1	1	1	45.827	446
Cre03.g171900.t1.1	Flagellar As	Cre03.g171	1	1	1	63.126	535
Cre03.g171950.t1.1	Phosphoen	Cre03.g171	8	8	8	131.19	1221
Cre03.g172000.t1.2	(1 of 1) PTH	Cre03.g172	8	8	8	33.122	322
Cre03.g172300.t1.2	Mitochond	Cre03.g172	4	4	4	37.439	351
Cre03.g172500.t1.1	Plastid tern	Cre03.g172	3	3	3	46.77	416
Cre03.g172550.t1.2	Protein-/Hi	Cre03.g172	1	1	1	38.836	345
Cre03.g172850.t1.2	O-acetylser	Cre03.g172	7	6	6	41.824	396
Cre03.g172950.t1.2	Centromer	Cre03.g172	10	10	10	58.331	525
Cre03.g173350.t2.1	Predicted p	Cre03.g173	5	5	5	38.471	368
Cre03.g173600.t1.2	(1 of 2) KO(	Cre03.g173	2	2	2	133.93	1378

Cre03.g174750.t1.2	Peptidyl-pr	Cre03.g174	6	6	6	33.072	313
Cre03.g175000.t1.2	3'-5' Exorib	Cre03.g175	1	1	1	52.395	507
Cre03.g175200.t1.2	Translocon	Cre03.g175	2	2	2	87.233	798
Cre03.g175400.t2.1	Phosphogl	Cre03.g175	36	36	36	71.611	644
Cre03.g176100.t1.2	(1 of 1) K18	Cre03.g176	4	4	4	27.463	254
Cre03.g176250.t1.2	Vacuolar A	Cre03.g176	5	5	5	40.499	351
Cre03.g176350.t2.1	Plastid lipid	Cre03.g176	1	1	1	47.127	437
Cre03.g176500.t1.2	NA	Cre03.g176	1	1	1	17.491	164
Cre03.g176651.t1.1	(1 of 2) PTH	Cre03.g176	1	1	1	111.55	1126
Cre03.g176866.t1.1	NA	Cre03.g176	1	1	1	79.903	783
Cre03.g177053.t1.1	(1 of 1) PTH	Cre03.g177	13	13	13	136.68	1343
Cre03.g177200.t1.2	RNA-bindin	Cre03.g177	12	12	12	44.633	436
Cre03.g177250.t1.2	Haloperoxi	Cre03.g177	2	2	2	46.39	416
Cre03.g177500.t1.1	(1 of 2) K17	Cre03.g177	2	2	2	19.866	178
Cre03.g177950.t1.1	(1 of 1) PTH	Cre03.g177	1	1	1	276.07	2701
Cre03.g178150.t1.1	Calmodulin	Cre03.g178	1	1	1	18.296	163
Cre03.g178250.t1.2	NADH:ubiq	Cre03.g178	8	8	8	16.284	154
Cre03.g178450.t1.2	Chaperonir	Cre03.g178	7	7	7	10.766	99
Cre03.g178500.t1.2	Flagellar pr	Cre03.g178	2	2	2	39.676	346
Cre03.g179860.t1.1	(1 of 1) 2.1.	Cre03.g179	7	7	7	97.215	918
Cre03.g179941.t1.1	NA	Cre03.g179	1	1	1	22.253	223
Cre03.g180750.t1.2	Cobalamin-	Cre03.g180	46	46	46	86.772	815
Cre03.g180800.t1.1	(1 of 1) K11	Cre03.g180	4	4	4	133.36	1186
Cre03.g181150.t1.1	Dynein arm	Cre03.g181	6	6	6	10.322	91
Cre03.g181200.t1.2	(1 of 1) K01	Cre03.g181	4	4	4	63.807	610
Cre03.g181250.t1.1	NAD-deper	Cre03.g181	1	1	1	31.99	301
Cre03.g181300.t1.2	5-enolpyru	Cre03.g181	11	11	11	53.814	512
Cre03.g181500.t1.2	alpha-1,4-g	Cre03.g181	9	9	9	65.753	584
Cre03.g182050.t1.2	(1 of 2) PTH	Cre03.g182	7	7	7	72.25	667
Cre03.g182150.t1.2	Predicted p	Cre03.g182	5	5	5	28.313	263
Cre03.g182450.t1.2	(1 of 3) 1.5.	Cre03.g182	9	9	9	35.861	340
Cre03.g182500.t1.2	Subunit of	Cre03.g182	2	2	2	76.878	746
Cre03.g182551.t1.2	Pre-apopla	Cre03.g182	6	6	6	14.875	145
Cre03.g182800.t1.1	Alanine-gly	Cre03.g182	5	5	5	47.38	437
Cre03.g182950.t1.2	DEAH-box I	Cre03.g182	1	1	1	79.426	704
Cre03.g183000.t1.2	NA	Cre03.g183	1	1	1	13.523	119
Cre03.g183200.t1.2	Protein ass	Cre03.g183	1	1	1	205.13	1929
Cre03.g183300.t2.1	(1 of 4) 2.7.	Cre03.g183	1	1	1	19.629	175
Cre03.g183400.t1.1	(1 of 1) PTH	Cre03.g183	3	3	3	25.239	233
Cre03.g183500.t1.2	(1 of 1) K14	Cre03.g183	1	1	1	22.906	206
Cre03.g184550.t1.2	Predicted p	Cre03.g184	3	3	3	33.775	303
Cre03.g184700.t2.1	(1 of 1) PTH	Cre03.g184	1	1	1	39.398	380
Cre03.g185200.t1.2	Metallopho	Cre03.g185	7	7	7	44.482	414
Cre03.g185250.t1.2	Soluble sta	Cre03.g185	1	1	1	77.006	698
Cre03.g185500.t1.1	Flagellar As	Cre03.g185	1	1	1	168.38	1583
Cre03.g185550.t1.2	Sedoheptul	Cre03.g185	25	25	25	41.446	385
Cre03.g185650.t1.2	Flagellar As	Cre03.g185	1	1	1	97.381	906
Cre03.g186000.t1.2	(1 of 1) PF0	Cre03.g186	3	3	3	36.107	336
Cre03.g186500.t1.1	(1 of 1) K11	Cre03.g186	2	2	2	85.174	836
Cre03.g187000.t1.1	(1 of 1) PF1	Cre03.g187	1	1	1	117.01	1158

Cre03.g187450.t1.2	Ribose-5-pl	Cre03.g187	11	11	11	28.819	269
Cre03.g187550.t1.1	(1 of 1) PTH	Cre03.g187	1	1	1	86.061	863
Cre03.g187850.t1.2	NA	Cre03.g187	1	1	1	27.995	266
Cre03.g188250.t1.2	ADP-glucos	Cre03.g188	27	27	27	55.344	514
Cre03.g188650.t1.2	Plastid lipid	Cre03.g188	2	2	2	24.626	226
Cre03.g188800.t1.1	(1 of 1) PTH	Cre03.g188	4	4	4	59.099	543
Cre03.g189150.t1.1	NA	Cre03.g189	1	1	1	425.79	4385
Cre03.g189300.t1.1	Plastid lipid	Cre03.g189	3	3	3	32.993	314
Cre03.g189350.t1.2	NA	Cre03.g189	1	1	1	14.653	136
Cre03.g189400.t1.2	Seryl-tRNA	Cre03.g189	10	10	10	52.777	472
Cre03.g189450.t1.2	(1 of 2) PTH	Cre03.g189	2	1	1	20.223	189
Cre03.g189500.t1.2	(1 of 3) K03	Cre03.g189	4	4	3	22.986	218
Cre03.g189800.t1.2	Peptidyl-pr	Cre03.g189	32	32	32	44.694	413
Cre03.g189950.t1.2	HSP70-HSP	Cre03.g189	14	14	14	63.853	577
Cre03.g190100.t1.1	Eukaryotic	Cre03.g190	12	12	12	82.761	718
Cre03.g190500.t1.2	Glycoside-h	Cre03.g190	10	10	10	100.69	907
Cre03.g190650.t1.1	NA	Cre03.g190	1	1	1	133.68	1275
Cre04.g216850.t1.2	Alpha tubu	Cre04.g216	34	34	34	49.586	451
Cre03.g191050.t1.2	Ran-like sm	Cre03.g191	18	18	18	25.436	223
Cre03.g192850.t1.2	(1 of 1) 2.3.	Cre03.g192	1	1	1	118.2	1093
Cre03.g193700.t1.1	(1 of 1) PTH	Cre03.g193	2	2	2	53.759	492
Cre03.g193750.t1.1	Glycine cle	Cre03.g193	23	23	23	44.631	419
Cre03.g193800.t1.1	(1 of 1) 6.1.	Cre03.g193	17	17	17	55.567	500
Cre03.g193850.t1.2	Succinyl-Co	Cre03.g193	5	5	5	34.323	329
Cre03.g193950.t1.2	(1 of 1) 1.8.	Cre03.g193	5	5	5	16.076	145
Cre03.g194200.t1.2	Pyruvate d	Cre03.g194	13	13	13	40.247	370
Cre03.g194250.t1.2	(1 of 1) K05	Cre03.g194	5	5	5	25.193	239
Cre03.g194350.t1.2	NA	Cre03.g194	10	10	10	71.74	652
Cre03.g194400.t1.2	Eukaryotic	Cre03.g194	5	5	5	36.575	324
Cre03.g194850.t1.2	NAD-deper	Cre03.g194	26	26	26	36.601	355
Cre03.g195388.t1.1	NA	Cre03.g195	2	2	2	9.293	87
Cre03.g195650.t1.2	Plastid ribo	Cre03.g195	5	5	5	18.71	169
Cre03.g196450.t1.2	(1 of 1) K15	Cre03.g196	1	1	1	71.375	642
Cre03.g196900.t1.2	(1 of 1) PTH	Cre03.g196	1	1	1	27.98	257
Cre03.g197500.t2.1	Predicted p	Cre03.g197	13	13	13	47.484	456
Cre03.g197650.t1.2	(1 of 16) PF	Cre03.g197	7	7	7	28.895	264
Cre03.g198850.t1.2	(1 of 2) PTH	Cre03.g198	9	9	9	26.612	248
Cre03.g198950.t1.2	Predicted p	Cre03.g198	5	5	5	28.84	262
Cre03.g199000.t1.2	Phototropi	Cre03.g199	16	16	16	81.394	749
Cre03.g199423.t1.1	Dihydrooro	Cre03.g199	2	2	2	43.733	415
Cre03.g199535.t1.1	Low molec	Cre03.g199	7	7	7	27.233	247
Cre03.g199647.t1.1	Eukaryotic	Cre03.g199	4	3	3	45.594	399
Cre03.g199759.t2.1	(1 of 1) PTH	Cre03.g199	5	5	5	52.165	463
Cre03.g199800.t1.1	Iron hydro	Cre03.g199	3	3	3	53.111	497
Cre03.g199900.t1.2	Eukaryotic	Cre03.g199	7	7	7	23.097	202
Cre03.g199983.t1.1	(1 of 1) PTH	Cre03.g199	2	2	2	35.395	314
Cre03.g200250.t1.2	(1 of 1) 2.7.	Cre03.g200	14	14	14	37.032	346
Cre03.g200700.t1.2	Flagellar As	Cre03.g200	1	1	1	23.279	214
Cre03.g200991.t1.1	(1 of 1) K15	Cre03.g200	2	2	2	48.139	464
Cre03.g201100.t1.2	FtsH-like A	Cre03.g201	1	1	1	128.38	1178

Cre03.g201500.t1.2	(1 of 1) PF1	Cre03.g201	1	1	1	16.193	149
Cre03.g201776.t1.1	(1 of 1) PTH	Cre03.g201	1	1	1	29.107	266
Cre03.g201900.t1.1	Radial spok	Cre03.g201	10	10	10	87.785	814
Cre03.g202113.t1.1	(1 of 1) 6.3.	Cre03.g202	4	4	4	41.028	372
Cre03.g202200.t1.1	NA	Cre03.g202	1	1	1	177.64	1746
Cre03.g202300.t1.1	NA	Cre03.g202	1	1	1	145.02	1446
Cre03.g205250.t1.1	Exostosin-li	Cre03.g205	1	1	1	71.272	626
Cre03.g202950.t1.1	(1 of 1) PTH	Cre03.g202	3	3	3	39.84	357
Cre03.g203450.t1.2	Ribosomal	Cre03.g203	4	4	4	9.1042	82
Cre03.g203800.t1.2	NA	Cre03.g203	1	1	1	12.841	124
Cre03.g203850.t1.2	ATP-sulfury	Cre03.g203	16	16	16	49.951	462
Cre03.g204250.t1.2	S-Adenosyl	Cre03.g204	44	44	44	52.718	483
Cre03.g204350.t1.2	Inactive sul	Cre03.g204	3	3	3	30.966	276
Cre03.g204601.t1.1	(1 of 1) K0(	Cre03.g204	6	6	6	28.202	262
Cre03.g204650.t1.2	NADH:ubiq	Cre03.g204	1	1	1	16.166	142
Cre03.g204950.t1.2	(1 of 1) PF1	Cre03.g204	2	1	1	78.337	767
Cre03.g205697.t1.1	(1 of 2) PTH	Cre03.g205	1	1	1	119.61	1152
Cre03.g205800.t1.2	(1 of 1) KO(	Cre03.g205	1	1	1	60.941	614
Cre03.g206450.t1.2	NA	Cre03.g206	2	2	2	6.7576	64
Cre03.g206550.t1.2	Phosphogly	Cre03.g206	1	1	1	30.953	290
Cre03.g206600.t1.2	Acetohydrc	Cre03.g206	33	33	33	64.232	604
Cre03.g206817.t1.1	NA	Cre03.g206	1	1	1	200.83	2057
Cre03.g206850.t1.1	(1 of 3) PTH	Cre03.g206	2	2	2	29.54	272
Cre03.g207700.t1.1	Farnesyl py	Cre03.g207	1	1	1	40.491	360
Cre03.g207713.t1.1	Isoamylase	Cre03.g207	3	3	3	83.459	760
Cre03.g208000.t1.1	(1 of 1) KO(	Cre03.g208	2	2	2	12.764	123
Cre03.g208100.t1.1	3'-5' exorib	Cre03.g208	1	1	1	119.01	1136
Cre03.g209505.t1.1	(1 of 6) K14	Cre03.g209	1	1	1	32.485	281
Cre03.g211745.t1.1	(1 of 1) K0(	Cre03.g211	1	1	1	62.952	599
Cre03.g213313.t1.1	(1 of 2) K0(	Cre03.g213	1	1	1	32.542	321
Cre03.g213425.t1.1	Cytochrom	Cre03.g213	4	4	4	16.497	156
Cre03.g213537.t1.1	(1 of 1) K01	Cre03.g213	9	9	9	17.193	163
Cre04.g211800.t1.2	Ribosomal	Cre04.g211	6	6	6	14.933	140
Cre04.g212500.t1.2	Predicted p	Cre04.g212	1	1	1	35.651	321
Cre04.g213100.t1.1	Esterase-lik	Cre04.g213	1	1	1	35.044	334
Cre04.g213250.t1.2	(1 of 4) 3.4.	Cre04.g213	4	4	4	35.723	332
Cre04.g213251.t1.1	(1 of 4) 3.4.	Cre04.g213	1	1	1	23.979	219
Cre04.g213905.t2.1	(1 of 2) PF1	Cre04.g213	1	1	1	66.912	621
Cre04.g214150.t1.1	Thiazole bi(	Cre04.g214	10	10	10	36.892	357
Cre04.g214500.t1.1	Isocitrate d	Cre04.g214	11	11	11	49.284	443
Cre04.g214501.t1.1	(1 of 1) 2.7.	Cre04.g214	4	4	4	81.454	788
Cre04.g214502.t1.1	(1 of 1) 5.1.	Cre04.g214	8	8	8	38.917	349
Cre04.g214503.t2.1	(1 of 1) K02	Cre04.g214	16	16	16	15.07	140
Cre04.g215150.t2.1	Soluble sta	Cre04.g215	3	3	3	63.723	587
Cre04.g215250.t1.1	Flagellar As	Cre04.g215	1	1	1	239.07	2462
Cre04.g215600.t2.1	(1 of 2) 2.1.	Cre04.g215	5	5	5	25.406	237
Cre04.g215850.t1.2	Importin al	Cre04.g215	9	9	9	61.053	555
Cre04.g216100.t1.1	(1 of 1) 4.4.	Cre04.g216	3	3	3	25.423	225
Cre04.g216350.t1.2	Aldo/keto r	Cre04.g216	1	1	1	34.754	318
Cre04.g216600.t1.2	26S protea	Cre04.g216	4	3	3	44.102	396

Cre04.g216950.t1.2	(1 of 1) 2.3.	Cre04.g216	3	3	3	38.909	374
Cre04.g217550.t1.1	Eukaryotic	Cre04.g217	17	17	17	129.64	1198
Cre04.g217910.t1.1	(1 of 8) PTH	Cre04.g217	6	6	6	30.251	275
Cre04.g217921.t1.1	Beta subun	Cre04.g217	8	8	8	104.8	966
Cre04.g217929.t1.1	Sulfite oxid	Cre04.g217	4	4	4	63.93	605
Cre04.g217932.t1.1	Plastid ribo	Cre04.g217	1	1	1	12.082	114
Cre04.g217934.t1.1	(1 of 1) K07	Cre04.g217	1	1	1	25.129	221
Cre04.g217959.t2.1	(1 of 2) K01	Cre04.g217	3	3	3	25.337	234
Cre04.g218100.t1.2	Flagellar As	Cre04.g218	11	11	11	23.947	214
Cre04.g218150.t1.2	(1 of 14) KC	Cre04.g218	4	4	4	45.158	436
Cre04.g218250.t1.2	ARF-like GT	Cre04.g218	12	12	12	19.783	177
Cre04.g219050.t1.1	Scavenger	Cre04.g219	1	1	1	275.95	2658
Cre04.g219250.t1.2	Intraflagelli	Cre04.g219	1	1	1	50.394	454
Cre04.g219950.t1.2	(1 of 2) KO(	Cre04.g219	8	8	8	43.794	438
Cre04.g220200.t3.1	(1 of 1) PTH	Cre04.g220	1	1	1	107.79	1062
Cre04.g220350.t2.1	Vacuolar A	Cre04.g220	3	3	3	95.723	874
Cre04.g221250.t1.2	(1 of 1) PF1	Cre04.g221	3	3	3	18.117	169
Cre04.g221400.t1.2	NA	Cre04.g221	4	4	4	14.58	134
Cre04.g221450.t1.2	(1 of 70) PF	Cre04.g221	2	2	2	79.681	756
Cre04.g221550.t1.2	(1 of 3) 5.5.	Cre04.g221	2	2	2	92.432	876
Cre04.g221700.t1.2	Cytochrom	Cre04.g221	1	1	1	41.417	382
Cre04.g222050.t1.1	(1 of 2) K16	Cre04.g222	1	1	1	192.75	1804
Cre04.g222700.t1.2	(1 of 2) K03	Cre04.g222	65	65	64	115.31	1053
Cre04.g223050.t1.2	Carbonic ar	Cre04.g223	10	5	5	42.172	380
Cre04.g223100.t1.2	Carbonic ar	Cre04.g223	20	20	15	41.627	377
Cre04.g223200.t1.1	(1 of 18) KC	Cre04.g223	1	1	1	148.75	1492
Cre04.g223800.t2.1	(1 of 1) K01	Cre04.g223	3	3	3	15.833	150
Cre04.g223850.t1.2	Cytoplasmi	Cre04.g223	7	7	7	46.264	405
Cre04.g225200.t1.1	NA	Cre04.g225	2	2	2	129.92	1268
Cre04.g225350.t2.1	(1 of 1) PTH	Cre04.g225	6	6	6	150.43	1505
Cre04.g225600.t1.1	(1 of 1) PTH	Cre04.g225	1	1	1	28.228	254
Cre04.g226850.t1.2	Pepsin-type	Cre04.g226	3	3	3	59.847	578
Cre04.g228350.t1.1	(1 of 1) 2.3.	Cre04.g228	2	2	2	61.839	628
Cre04.g229300.t1.1	Rubisco act	Cre04.g229	39	39	39	45.029	408
Cre04.g229350.t1.2	(1 of 1) 2.1.	Cre04.g229	1	1	1	47.372	459
Cre04.g229700.t1.2	UDP-glucos	Cre04.g229	5	5	5	49.833	474
Cre04.g231026.t1.1	Chloroplast	Cre04.g231	4	4	4	46.2	430
Cre04.g231124.t1.1	(1 of 1) PF0	Cre04.g231	2	2	2	18.591	177
Cre04.g231222.t2.1	(1 of 1) PTH	Cre04.g231	33	33	32	98.795	937
Cre04.g232104.t1.1	Light-harve	Cre04.g232	13	5	5	27.38	257
Cre05.g230850.t1.1	NA	Cre05.g230	4	4	4	60.648	636
Cre05.g232150.t1.2	Glutamate	Cre05.g232	13	13	13	48.779	448
Cre05.g232750.t1.2	NimA-relat	Cre05.g232	2	2	2	57.918	525
Cre05.g232752.t1.1	(1 of 1) PF0	Cre05.g232	1	1	1	61.204	610
Cre05.g233050.t1.2	Flagellar As	Cre05.g233	17	17	17	19.056	180
Cre05.g233300.t1.2	(1 of 1) 2.1.	Cre05.g233	1	1	1	32.39	300
Cre05.g233303.t2.1	(1 of 1) K11	Cre05.g233	3	3	3	187.22	1832
Cre05.g233305.t2.1	(1 of 1) K07	Cre05.g233	2	2	2	40.532	389
Cre05.g233800.t1.2	(1 of 1) K01	Cre05.g233	28	28	28	76.431	692
Cre05.g233900.t1.2	(1 of 3) 1.1	Cre05.g233	14	14	14	36.491	347

Cre05.g233950.t1.2	(1 of 1) PTH	Cre05.g233	4	4	4	15.636	144
Cre05.g234050.t1.2	NA	Cre05.g234	1	1	1	38.097	343
Cre05.g234550.t2.1	Fructose-1,	Cre05.g234	37	37	37	40.985	377
Cre05.g234637.t1.1	(1 of 1) K02	Cre05.g234	9	9	9	14.838	130
Cre05.g234638.t1.1	(1 of 1) 2.4.	Cre05.g234	6	6	6	65.759	598
Cre05.g234639.t1.1	T-complex	Cre05.g234	8	8	8	57.073	526
Cre05.g234651.t2.1	(1 of 2) PTH	Cre05.g234	2	2	2	66.724	616
Cre05.g234661.t1.1	Ubiquinol:c	Cre05.g234	1	1	1	68.346	640
Cre05.g234700.t1.1	Pyruvate ki	Cre05.g234	1	1	1	247.61	2306
Cre05.g234850.t1.1	(1 of 1) K11	Cre05.g234	2	2	2	198.75	2047
Cre05.g235400.t1.2	(1 of 2) PTH	Cre05.g235	1	1	1	319.71	2974
Cre05.g236050.t1.1	(1 of 1) KO(	Cre05.g236	4	4	4	496.48	4754
Cre05.g237000.t1.2	Methionine	Cre05.g237	2	2	2	36.825	337
Cre05.g237400.t1.2	Diaminopir	Cre05.g237	9	9	9	34.771	322
Cre05.g237450.t1.2	Plastid-spe	Cre05.g237	16	16	16	31.708	285
Cre05.g237700.t1.2	Nucleolar p	Cre05.g237	1	1	1	7.3864	64
Cre05.g238322.t1.1	(1 of 2) 6.1.	Cre05.g238	1	1	1	44.906	414
Cre05.g238332.t1.1	Photosyste	Cre05.g238	18	18	18	21.342	196
Cre05.g238650.t1.1	Cell wall pr	Cre05.g238	2	2	2	58.284	558
Cre05.g238900.t1.1	(1 of 1) K14	Cre05.g238	1	1	1	80.688	770
Cre05.g239300.t1.1	NA	Cre05.g239	2	2	2	118.28	1246
Cre05.g240800.t1.2	NADH:ubiq	Cre05.g240	4	4	4	19.604	172
Cre05.g240850.t1.2	Hydroxyme	Cre05.g240	5	5	5	70.449	637
Cre05.g241100.t1.2	(1 of 2) PF1	Cre05.g241	1	1	1	16.267	139
Cre05.g241300.t1.2	Small nucle	Cre05.g241	1	1	1	9.637	85
Cre05.g241450.t1.2	Chloroplast	Cre05.g241	3	3	3	40.602	381
Cre05.g241637.t1.1	Intraflagell	Cre05.g241	1	1	1	37.934	344
Cre05.g241650.t1.1	(1 of 1) K01	Cre05.g241	2	2	2	93.65	907
Cre05.g241655.t1.1	NA	Cre05.g241	1	1	1	17.619	167
Cre05.g241850.t1.2	ATP citrate	Cre05.g241	4	4	4	44.487	417
Cre05.g241950.t1.2	(1 of 2) K15	Cre05.g241	13	13	13	28.549	276
Cre05.g242000.t1.2	Magnesium	Cre05.g242	9	9	9	82.68	767
Cre05.g242300.t1.2	Eukaryotic	Cre05.g242	12	12	12	61.653	567
Cre05.g242350.t1.2	(1 of 1) PTH	Cre05.g242	1	1	1	113.98	1064
Cre05.g242400.t1.2	(1 of 1) PTH	Cre05.g242	5	5	5	14.86	141
Cre05.g242500.t1.2	Radial spok	Cre05.g242	5	5	5	49.797	465
Cre05.g242550.t1.2	Radial spok	Cre05.g242	4	4	4	48.845	459
Cre05.g242858.t1.1	NA	Cre05.g242	4	4	4	247.69	2475
Cre05.g243050.t1.2	Chloroplast	Cre05.g243	10	10	10	19.919	180
Cre05.g243150.t1.1	(1 of 1) PTH	Cre05.g243	2	2	2	252.11	2647
Cre05.g243451.t1.1	(1 of 2) K06	Cre05.g243	1	1	1	23.108	216
Cre05.g243800.t1.2	Predicted p	Cre05.g243	8	8	8	19.087	178
Cre05.g244800.t1.2	(1 of 1) PTH	Cre05.g244	7	7	7	67.194	642
Cre05.g244950.t1.2	(1 of 1) K13	Cre05.g244	1	1	1	24.632	226
Cre05.g245158.t1.1	(1 of 3) 3.6.	Cre05.g245	10	10	10	77.299	724
Cre05.g245900.t1.2	Branched-c	Cre05.g245	16	16	16	42.527	396
Cre05.g245950.t1.1	Dynamin-re	Cre05.g245	11	11	11	69.55	628
Cre05.g246400.t1.2	(1 of 1) PF0	Cre05.g246	1	1	1	37.044	380
Cre05.g246800.t1.2	Tetrapyrrol	Cre05.g246	5	5	5	29	260
Cre05.g246950.t1.1	NA	Cre05.g246	3	3	3	46.657	466

Cre05.g247400.t1.2	Putative rh	Cre05.g247	1	1	1	17.821	169
Cre05.g247450.t1.2	Putative rh	Cre05.g247	6	6	6	85.013	891
Cre05.g247600.t1.2	Ubiquitin-c	Cre05.g247	8	8	8	16.055	139
Cre05.g247950.t1.2	NA	Cre05.g247	2	2	2	21.741	207
Cre05.g248100.t1.2	Predicted p	Cre05.g248	2	2	2	45.628	438
Cre05.g248450.t1.2	Mitochond	Cre05.g248	19	19	19	27.672	267
Cre05.g248600.t1.2	(1 of 5) 3.6	Cre05.g248	2	2	2	12.135	118
Cre06.g249150.t1.1	(1 of 1) PTH	Cre06.g249	1	1	1	50.285	452
Cre06.g249200.t1.2	Actin-relate	Cre06.g249	1	1	1	21.873	206
Cre06.g249250.t1.2	Ribosomal	Cre06.g249	6	6	6	13.623	127
Cre06.g249750.t1.1	(1 of 1) PF0	Cre06.g249	1	1	1	86.252	870
Cre06.g250100.t1.2	Heat shock	Cre06.g250	48	48	45	71.954	679
Cre06.g250200.t1.2	S-adenosyl	Cre06.g250	32	32	32	42.583	390
Cre06.g250250.t1.2	Vacuolar A	Cre06.g250	2	2	2	41.963	373
Cre06.g250300.t1.2	Cytoplasmi	Cre06.g250	2	2	2	481.46	4333
Cre06.g250800.t2.1	C1, subunit	Cre06.g250	9	9	9	39.216	389
Cre06.g250902.t1.1	(1 of 1) 2.1	Cre06.g250	4	4	4	267.83	2453
Cre06.g250950.t1.2	(1 of 1) K12	Cre06.g250	3	3	3	31.463	273
Cre06.g251100.t1.2	N-myristoy	Cre06.g251	3	3	3	45.159	400
Cre06.g251150.t1.2	Low CO2 a	Cre06.g251	3	3	3	16.113	144
Cre06.g251200.t1.2	Intraflagell	Cre06.g251	1	1	1	28.815	272
Cre06.g251300.t1.2	U6 snRNA-	Cre06.g251	1	1	1	14.743	134
Cre06.g251400.t1.2	NADP-depe	Cre06.g251	9	9	9	67.589	617
Cre06.g251450.t1.1	Quinolinate	Cre06.g251	4	4	4	76.781	731
Cre06.g251500.t1.2	Spermine s	Cre06.g251	10	10	10	35.142	314
Cre06.g251600.t1.2	Eukaryotic	Cre06.g251	2	2	2	51.799	467
Cre06.g252000.t1.2	(1 of 1) K19	Cre06.g252	3	3	3	35.717	326
Cre06.g252450.t1.1	(1 of 2) PTH	Cre06.g252	2	2	2	38.787	345
Cre06.g252550.t1.1	Dihydrolipo	Cre06.g252	4	4	4	65.181	643
Cre06.g252650.t1.2	Isopropylm	Cre06.g252	11	11	11	23.387	214
Cre06.g252850.t2.1	NA	Cre06.g252	4	4	4	43.587	416
Cre06.g253350.t1.2	Glycine cle	Cre06.g253	5	5	5	16.81	159
Cre06.g253750.t2.1	Zygote-spe	Cre06.g253	1	1	1	51.832	489
Cre06.g254100.t1.1	(1 of 543) 2	Cre06.g254	1	1	1	74.526	709
Cre06.g254400.t1.1	Fumarate h	Cre06.g254	3	3	3	63.488	589
Cre06.g255100.t1.1	NA	Cre06.g255	20	20	20	94.084	917
Cre06.g255350.t1.2	Hydroxyeth	Cre06.g255	4	4	4	28.583	277
Cre06.g256250.t1.2	Thylakoid l	Cre06.g256	14	14	14	20.575	196
Cre06.g257000.t1.2	Sulfate bin	Cre06.g257	4	4	4	50.037	467
Cre06.g257150.t1.2	Ribosomal	Cre06.g257	3	3	3	10.277	92
Cre06.g257500.t1.2	14-3-3 prot	Cre06.g257	23	23	23	28.002	247
Cre06.g257601.t1.2	2-cys perox	Cre06.g257	11	11	11	25.961	235
Cre06.g257700.t1.1	NA	Cre06.g257	3	3	3	332.91	3067
Cre06.g257850.t1.2	(1 of 2) PTH	Cre06.g257	3	3	3	39.594	374
Cre06.g258700.t1.1	Pyruvate ca	Cre06.g258	31	31	31	102.88	946
Cre06.g258733.t2.1	(1 of 1) 2.3	Cre06.g258	16	16	16	73.874	686
Cre06.g258800.t1.1	Hydroxypro	Cre06.g258	31	31	31	132.09	1259
Cre06.g259100.t1.1	NA	Cre06.g259	11	11	11	138.44	1304
Cre06.g259150.t1.2	Mitochond	Cre06.g259	9	9	9	48.021	445
Cre06.g259450.t1.2	NA	Cre06.g259	8	8	8	23.788	234

Cre06.g259550.t1.2	(1 of 2) PTH	Cre06.g259	1	1	1	63.363	599
Cre06.g259850.t1.2	Putative ch	Cre06.g259	6	6	6	14.937	134
Cre06.g259900.t1.2	Chloroplast	Cre06.g259	27	27	27	38.76	358
Cre06.g260350.t1.2	DnaJ-like p	Cre06.g260	1	1	1	59.57	563
Cre06.g260950.t1.2	(1 of 1) K12	Cre06.g260	1	1	1	65.11	590
Cre06.g261000.t1.2	10 kDa pho	Cre06.g261	6	6	6	15.139	141
Cre06.g261450.t1.2	(1 of 1) K10	Cre06.g261	9	9	9	19.515	179
Cre06.g261500.t1.2	(1 of 1) PTH	Cre06.g261	3	3	3	35.463	324
Cre06.g261650.t1.1	Prefoldin n	Cre06.g261	2	2	2	21.007	191
Cre06.g261700.t1.2	(1 of 1) K14	Cre06.g261	2	2	2	29.574	269
Cre06.g261800.t1.2	Prephenate	Cre06.g261	10	10	10	40.5	374
Cre06.g262100.t1.1	Glutathion	Cre06.g262	5	5	5	52.036	493
Cre06.g262650.t1.1	(1 of 30) PF	Cre06.g262	1	1	1	207.41	2083
Cre06.g262700.t1.1	Ubiquinol:c	Cre06.g262	12	12	12	14.041	123
Cre06.g262850.t1.2	Small Rab-r	Cre06.g262	1	1	1	28.04	256
Cre06.g262900.t1.2	Phosphofru	Cre06.g262	5	5	4	56.561	529
Cre06.g263150.t1.2	(1 of 1) PTH	Cre06.g263	2	2	2	62.972	617
Cre06.g263250.t1.1	NA	Cre06.g263	12	12	12	322.93	3721
Cre06.g263450.t1.2	(1 of 3) K03	Cre06.g263	58	58	58	50.824	463
Cre06.g264050.t1.2	(1 of 3) PTH	Cre06.g264	2	2	2	26.721	251
Cre06.g264200.t1.2	Iron-sulfur	Cre06.g264	3	3	3	32.281	291
Cre06.g264300.t1.2	Plastid ribo	Cre06.g264	7	7	7	15.788	141
Cre06.g264350.t1.2	Plastid ribo	Cre06.g264	7	7	7	24.548	225
Cre17.g714600.t1.2	(1 of 32) K1	Cre17.g714	8	8	8	11.457	103
Cre17.g714650.t1.2	Histone H3	Cre17.g714	9	9	9	15.31	135
Cre17.g714500.t1.2	Histone H2	Cre17.g714	3	2	2	13.628	129
Cre17.g709150.t1.2	Histone H2	Cre17.g709	17	17	5	16.557	153
Cre06.g265800.t1.2	Plastid ribo	Cre06.g265	13	13	13	21.907	195
Cre06.g266900.t1.1	(1 of 2) PF1	Cre06.g266	1	1	1	35.489	325
Cre06.g267200.t1.2	NADH:ubiq	Cre06.g267	2	2	2	13.447	121
Cre06.g267850.t1.2	Phospholip	Cre06.g267	1	1	1	62.611	628
Cre06.g268450.t1.1	(1 of 1) PTH	Cre06.g268	1	1	1	68.7	674
Cre06.g268600.t1.2	Nucleic aci	Cre06.g268	8	8	8	26.538	247
Cre06.g269050.t1.2	(1 of 2) PTH	Cre06.g269	49	49	49	91.204	898
Cre06.g269450.t1.2	Eukaryotic	Cre06.g269	8	8	8	31.675	283
Cre06.g269950.t1.2	Protein inv	Cre06.g269	32	32	32	90.23	817
Cre06.g271200.t1.2	(1 of 1) 1.6	Cre06.g271	10	10	10	62.915	589
Cre06.g271700.t1.1	(1 of 2) 3.4	Cre06.g271	5	5	5	56.256	534
Cre06.g271900.t2.1	(1 of 1) 1.1	Cre06.g271	3	3	3	23.241	221
Cre06.g271950.t1.2	(1 of 1) PTH	Cre06.g271	1	1	1	121.74	1264
Cre06.g272050.t1.2	Phosphogly	Cre06.g272	19	19	19	66.649	626
Cre06.g272500.t1.2	NA	Cre06.g272	1	1	1	14.642	135
Cre06.g272650.t1.2	Light-harve	Cre06.g272	12	12	12	25.921	243
Cre06.g272800.t1.2	Ribosomal	Cre06.g272	11	11	11	23.895	208
Cre06.g272850.t1.2	Plastid ribo	Cre06.g272	14	14	14	25.901	235
Cre06.g272900.t1.2	(1 of 2) 5.4	Cre06.g272	13	13	13	56.093	504
Cre06.g272950.t1.1	Ribosomal	Cre06.g272	9	9	9	17.579	153
Cre06.g273000.t1.2	(1 of 1) K02	Cre06.g273	5	5	5	14.489	132
Cre06.g273050.t1.2	Transcriptio	Cre06.g273	1	1	1	52.281	509
Cre06.g273300.t1.2	(1 of 2) 6.1	Cre06.g273	8	8	8	79.404	700

Cre06.g273413.t1.1	(1 of 1) K14	Cre06.g273	5	5	5	93.885	900
Cre06.g273550.t1.2	NA	Cre06.g273	1	1	1	14.795	136
Cre06.g273600.t1.2	Ribosomal	Cre06.g273	6	6	6	19.51	182
Cre06.g273700.t1.2	(1 of 1) PTH	Cre06.g273	24	24	24	43.155	403
Cre06.g273750.t1.1	Chloroplast	Cre06.g273	8	8	8	48.146	440
Cre06.g274500.t1.2	(1 of 1) K14	Cre06.g274	1	1	1	25.737	250
Cre06.g274650.t1.1	(1 of 3) PTH	Cre06.g274	2	2	2	67.992	646
Cre06.g275050.t1.1	Gamma-glu	Cre06.g275	3	3	3	41.395	379
Cre06.g275100.t1.2	(1 of 1) K11	Cre06.g275	17	17	17	53.639	519
Cre06.g275300.t1.2	(1 of 1) PTH	Cre06.g275	1	1	1	21.038	181
Cre06.g275650.t1.2	26S protea	Cre06.g275	3	3	3	54.995	488
Cre06.g275900.t1.2	Histone H1	Cre06.g275	5	5	5	24.692	232
Cre06.g276700.t1.2	(1 of 1) 3.5	Cre06.g276	1	1	1	45.512	432
Cre06.g277050.t1.1	(1 of 1) K14	Cre06.g277	2	2	2	96.686	885
Cre06.g278087.t1.1	(1 of 4) PTH	Cre06.g278	5	5	5	153.74	1438
Cre06.g278097.t1.1	mRNA exp	Cre06.g278	1	1	1	39.22	352
Cre06.g278098.t1.1	Methylcrot	Cre06.g278	4	4	4	82.188	790
Cre06.g278112.t1.1	NA	Cre06.g278	1	1	1	8.1088	74
Cre06.g278117.t1.1	Predicted p	Cre06.g278	6	6	6	29.897	272
Cre06.g278125.t1.1	(1 of 1) PF0	Cre06.g278	7	7	7	139.21	1238
Cre06.g278135.t1.1	Ribosomal	Cre06.g278	8	8	8	25.873	229
Cre06.g278142.t1.1	(1 of 1) K14	Cre06.g278	2	2	2	57.049	524
Cre06.g278147.t1.1	NA	Cre06.g278	1	1	1	74.611	742
Cre06.g278148.t1.1	(1 of 2) K18	Cre06.g278	12	12	12	39.383	386
Cre06.g278161.t1.1	(1 of 37) 3.4	Cre06.g278	1	1	1	79.223	759
Cre06.g278154.t1.1	(1 of 1) PTH	Cre06.g278	2	2	2	74.631	658
Cre06.g278162.t1.1	Cell wall pr	Cre06.g278	2	2	2	47.117	443
Cre06.g278163.t1.1	Acetylornit	Cre06.g278	6	6	6	49.017	460
Cre06.g278165.t1.1	(1 of 37) 3.4	Cre06.g278	3	3	3	79.149	735
Cre06.g278168.t1.1	(1 of 3) PTH	Cre06.g278	2	2	2	34.228	324
Cre06.g278169.t1.1	NA	Cre06.g278	1	1	1	52.683	505
Cre06.g278170.t1.1	Fasciclin-lik	Cre06.g278	10	10	10	133.22	1299
Cre06.g278183.t1.1	(1 of 1) PTH	Cre06.g278	1	1	1	60.201	571
Cre06.g278185.t1.1	UDP-glucos	Cre06.g278	18	18	9	52.724	478
Cre06.g278188.t1.1	NADH:ubiq	Cre06.g278	1	1	1	10.276	86
Cre06.g278195.t1.1	NA	Cre06.g278	2	2	2	14.081	130
Cre06.g278203.t1.1	(1 of 1) PTH	Cre06.g278	1	1	1	118.5	1173
Cre06.g278210.t1.1	Phosphoglu	Cre06.g278	33	33	33	64.56	600
Cre06.g278211.t1.1	NA	Cre06.g278	3	3	3	22.224	202
Cre06.g278213.t1.1	Light-harve	Cre06.g278	13	13	13	27.781	257
Cre06.g278215.t1.1	(1 of 1) 3.1	Cre06.g278	1	1	1	43.31	421
Cre06.g278221.t1.1	Trehalose-6	Cre06.g278	4	4	4	99.613	912
Cre06.g278222.t1.1	Receptor o	Cre06.g278	25	25	25	35.144	318
Cre06.g278225.t1.1	(1 of 1) PTH	Cre06.g278	1	1	1	99.876	918
Cre06.g278236.t1.1	Ubiquinone	Cre06.g278	2	2	2	29.462	266
Cre06.g278239.t2.1	Serine/argi	Cre06.g278	6	6	6	32.705	294
Cre06.g278255.t1.1	NA	Cre06.g278	21	21	21	106.99	1033
Cre06.g278256.t1.1	26S protea	Cre06.g278	5	5	5	36.998	330
Cre06.g278750.t1.2	Uncoupling	Cre06.g278	6	6	6	31.386	298
Cre06.g279150.t1.2	(1 of 2) 6.1	Cre06.g279	16	16	16	60.267	545

Cre06.g279250.t1.2	Exon juncti	Cre06.g279	2	2	2	19.734	190
Cre06.g279400.t1.2	(1 of 3) K09	Cre06.g279	5	5	5	64.207	571
Cre06.g279750.t1.2	Methionine	Cre06.g279	8	8	8	42.576	383
Cre06.g279850.t1.2	(1 of 1) PTH	Cre06.g279	3	3	3	28.967	271
Cre06.g280650.t1.2	Predicted p	Cre06.g280	2	2	2	29.367	268
Cre06.g280900.t3.1	Intra-Golgi	Cre06.g280	1	1	1	27.928	257
Cre06.g280950.t1.2	Pyruvate ki	Cre06.g280	7	7	7	78.235	732
Cre06.g281350.t1.2	Mitochond	Cre06.g281	7	7	7	112.28	1051
Cre06.g281800.t1.2	(1 of 6) PF0	Cre06.g281	2	2	2	32.291	290
Cre06.g282000.t2.1	Soluble sta	Cre06.g282	4	4	4	133.97	1219
Cre06.g282200.t1.2	Subunit of	Cre06.g282	1	1	1	26.044	233
Cre06.g282500.t1.2	Ribosomal	Cre06.g282	17	17	17	16.399	147
Cre06.g282800.t1.2	Isocitrate l	Cre06.g282	7	7	7	45.748	417
Cre06.g282900.t1.2	(1 of 1) K09	Cre06.g282	1	1	1	37.718	335
Cre06.g283050.t1.2	Light-harve	Cre06.g283	7	7	7	23.9	228
Cre06.g283100.t1.2	Flagellar As	Cre06.g283	1	1	1	22.197	197
Cre06.g283200.t1.2	(1 of 1) PTH	Cre06.g283	2	2	2	37.233	335
Cre06.g283300.t1.2	(1 of 34) PT	Cre06.g283	4	4	4	20.654	195
Cre06.g283500.t1.1	(1 of 36) PT	Cre06.g283	1	1	1	308.43	3068
Cre06.g283800.t1.2	NA	Cre06.g283	6	6	6	101.1	971
Cre06.g283950.t1.2	Chlorophyll	Cre06.g283	15	3	0	27.105	254
Cre06.g284200.t1.2	Chlorophyll	Cre06.g284	10	3	3	27.075	254
Cre06.g284550.t1.2	NA	Cre06.g284	6	6	6	112.02	1093
Cre06.g284600.t1.2	Rubredoxin	Cre06.g284	4	4	4	12.421	117
Cre06.g284700.t1.2	Alanine am	Cre06.g284	4	4	4	57.036	527
Cre06.g284750.t1.2	Elongation	Cre06.g284	12	12	12	62.784	574
Cre06.g284900.t2.1	Peptidyl-pr	Cre06.g284	6	6	6	22.678	214
Cre06.g285250.t1.2	Chloropyll a	Cre06.g285	16	16	0	26.96	253
Cre06.g285401.t1.1	(1 of 1) PF0	Cre06.g285	9	9	9	17.857	178
Cre06.g286600.t1.1	(1 of 1) PF1	Cre06.g286	2	2	2	69.387	667
Cre06.g287250.t1.2	Componen	Cre06.g287	1	1	1	88.085	840
Cre06.g288700.t1.2	Glycolate d	Cre06.g288	12	12	12	118.87	1095
Cre06.g288750.t1.2	Nuclear RN	Cre06.g288	1	1	1	17.372	163
Cre06.g288800.t1.2	(1 of 1) PTH	Cre06.g288	1	1	1	32.932	324
Cre06.g289550.t1.2	Ribosomal	Cre06.g289	12	12	12	15.48	133
Cre06.g290100.t1.2	Early endos	Cre06.g290	1	1	1	25.626	225
Cre06.g290150.t1.1	Predicted p	Cre06.g290	3	3	3	36.811	343
Cre06.g290350.t1.2	NA	Cre06.g290	2	2	2	19.432	184
Cre06.g290950.t1.2	Ribosomal	Cre06.g290	16	16	16	21.638	193
Cre06.g291700.t1.2	Radial spok	Cre06.g291	4	4	4	56.784	516
Cre06.g291850.t3.1	(1 of 2) PF1	Cre06.g291	1	1	1	90.044	847
Cre06.g292000.t1.1	(1 of 1) PTH	Cre06.g292	2	2	2	75.839	770
Cre06.g292500.t3.1	Cyclophilin	Cre06.g292	1	1	1	26.251	235
Cre06.g292550.t1.2	Serine/thre	Cre06.g292	9	9	9	34.848	304
Cre06.g293150.t1.2	(1 of 2) PTH	Cre06.g293	7	7	7	38.903	350
Cre06.g293582.t1.1	(1 of 2) 6.1	Cre06.g293	9	9	9	52.454	482
Cre06.g293850.t1.2	Gamma ca	Cre06.g293	7	7	7	31.168	279
Cre06.g293950.t1.2	Serine hydr	Cre06.g293	24	24	24	53.445	488
Cre06.g294000.t1.1	(1 of 2) K01	Cre06.g294	1	1	1	24.714	232
Cre06.g294450.t1.1	(1 of 1) PTH	Cre06.g294	3	3	3	40.202	373

Cre06.g294650.t1.2	Alanine-gly	Cre06.g294	15	15	15	46.06	422
Cre06.g294950.t1.1	(1 of 1) 1.3.	Cre06.g294	17	17	17	39.247	374
Cre06.g295400.t1.2	Mitochond	Cre06.g295	1	1	1	34.368	318
Cre06.g295450.t1.2	Hydroxypyı	Cre06.g295	20	20	20	44.744	418
Cre06.g296250.t1.1	Lysyl-tRNA	Cre06.g296	2	2	2	67.762	614
Cre06.g296400.t1.2	(1 of 1) 1.3.	Cre06.g296	3	3	3	45.379	429
Cre06.g296600.t1.2	Riboflavin s	Cre06.g296	1	1	1	22.924	215
Cre06.g296750.t1.2	Iron hydrog	Cre06.g296	1	1	1	121.93	1151
Cre06.g296983.t1.1	(1 of 1) K10	Cre06.g296	2	2	2	78.984	750
Cre06.g297600.t1.2	(1 of 4) PF0	Cre06.g297	1	1	1	18.943	174
Cre06.g297750.t1.2	SF3A3 splic	Cre06.g297	2	2	2	61.591	543
Cre06.g298100.t1.2	Translation	Cre06.g298	3	3	3	12.999	119
Cre06.g298350.t1.2	Flagellar As	Cre06.g298	9	9	9	47.242	425
Cre06.g298650.t1.2	(1 of 1) PTH	Cre06.g298	24	24	23	52.861	464
Cre06.g299000.t1.2	Plastid ribo	Cre06.g299	1	1	1	19.484	179
Cre06.g299650.t1.2	Inactive sul	Cre06.g299	5	5	5	31.179	283
Cre06.g299700.t1.2	SOUL heme	Cre06.g299	2	2	2	23.822	217
Cre06.g300139.t3.1	NA	Cre06.g300	1	1	1	7.2943	69
Cre06.g300550.t1.2	(1 of 14) PF	Cre06.g300	8	8	8	105.68	955
Cre06.g300700.t1.1	(1 of 1) PTH	Cre06.g300	12	12	12	28.868	271
Cre06.g300800.t1.2	Plastid ribo	Cre06.g300	3	3	3	17.176	161
Cre06.g302700.t1.1	(1 of 1) PF0	Cre06.g302	2	2	2	57.373	557
Cre06.g302850.t1.2	NA	Cre06.g302	1	1	1	97.105	947
Cre06.g303300.t1.2	Putative pe	Cre06.g303	6	6	6	42.282	398
Cre06.g304100.t1.2	(1 of 1) K17	Cre06.g304	1	1	1	54.254	529
Cre06.g304300.t1.2	20S protea	Cre06.g304	3	3	3	27.004	255
Cre06.g304350.t1.2	Mitochond	Cre06.g304	10	10	10	17.255	148
Cre06.g304500.t1.2	Zygote-spe	Cre06.g304	14	14	14	40.406	355
Cre06.g304800.t1.2	(1 of 1) PTH	Cre06.g304	1	1	1	97.567	1007
Cre06.g306300.t1.2	Magnesium	Cre06.g306	26	26	26	45.465	417
Cre06.g306550.t1.1	(1 of 1) K01	Cre06.g306	1	1	1	92.3	897
Cre06.g306601.t1.1	(1 of 1) 2.1.	Cre06.g306	11	11	11	66.568	626
Cre06.g306800.t1.2	(1 of 1) K08	Cre06.g306	3	3	3	23.611	240
Cre06.g307200.t1.2	(1 of 1) PTH	Cre06.g307	3	3	3	10.677	94
Cre06.g307250.t1.2	(1 of 1) PTH	Cre06.g307	1	1	1	134.07	1285
Cre06.g307450.t1.2	SF3A1 splic	Cre06.g307	5	5	5	90.213	858
Cre06.g307500.t1.1	Low-CO2 in	Cre06.g307	27	27	27	47.652	443
Cre06.g307600.t1.2	(1 of 1) K11	Cre06.g307	2	2	2	33.402	307
Cre06.g307750.t1.2	NA	Cre06.g307	1	1	1	36.007	323
Cre06.g307850.t1.2	NA	Cre06.g307	2	2	2	109.53	1134
Cre06.g308000.t1.2	(1 of 1) KO(	Cre06.g308	1	1	1	205.24	1989
Cre06.g308250.t1.2	Ribosomal	Cre06.g308	19	19	19	29.483	261
Cre06.g308350.t1.2	Serine/thre	Cre06.g308	1	1	1	35.338	307
Cre06.g308450.t1.2	(1 of 1) PTH	Cre06.g308	3	3	3	51.493	480
Cre06.g308500.t1.2	Carbamoyl	Cre06.g308	11	11	11	49.527	461
Cre06.g308850.t1.2	(1 of 1) K03	Cre06.g308	10	10	10	26.465	236
Cre06.g309050.t1.2	Negative re	Cre06.g309	2	2	2	71.984	721
Cre06.g309100.t1.2	Chaperonir	Cre06.g309	31	30	30	60.466	571
Cre06.g310700.t2.1	Ribosomal	Cre06.g310	2	2	2	9.3631	81
Cre06.g310750.t1.2	Gamma sul	Cre06.g310	9	9	9	98.528	899

Cre06.g310950.t1.2	(1 of 1) 1.5.	Cre06.g310	6	6	6	58.426	567
Cre06.g311050.t1.2	(1 of 1) K0(	Cre06.g311	2	2	2	39.436	372
Cre07.g312050.t1.1	(1 of 1) 1.5.	Cre07.g312	1	1	1	65.721	631
Cre07.g312300.t1.2	(1 of 3) 1.1.	Cre07.g312	1	1	1	18.276	171
Cre07.g313122.t1.1	(1 of 2) 3.4.	Cre07.g313	2	2	2	112.88	1057
Cre07.g313185.t1.1	(1 of 1) K03	Cre07.g313	1	1	1	15.904	140
Cre07.g313350.t1.2	(1 of 2) 3.5.	Cre07.g313	1	1	1	92.229	929
Cre07.g313700.t1.1	Glutamyl/g	Cre07.g313	5	5	5	60.638	560
Cre07.g314150.t1.2	Zeta-carote	Cre07.g314	8	8	8	63.411	582
Cre07.g314650.t1.2	Chloroplast	Cre07.g314	1	1	1	45.115	415
Cre07.g314700.t1.2	(1 of 1) PTH	Cre07.g314	1	1	1	170.88	1710
Cre07.g314900.t1.1	(1 of 1) PTH	Cre07.g314	3	3	3	80.39	731
Cre07.g315100.t1.2	(1 of 2) 1.5.	Cre07.g315	3	3	3	13.789	132
Cre07.g315150.t1.2	Rubredoxir	Cre07.g315	2	2	2	18.17	169
Cre07.g315700.t1.2	Peptidyl-pr	Cre07.g315	5	5	5	25.48	247
Cre07.g315750.t1.2	(1 of 1) 1.1.	Cre07.g315	9	9	9	26.94	267
Cre07.g316000.t1.2	(1 of 1) PTH	Cre07.g316	3	3	3	13.697	123
Cre07.g318450.t1.2	SEC61-beta	Cre07.g318	1	1	1	9.4587	92
Cre07.g318750.t1.2	(1 of 1) 6.3.	Cre07.g318	12	12	12	39.391	373
Cre07.g319100.t1.1	Glutathion	Cre07.g319	1	1	1	41.191	400
Cre07.g319300.t1.1	Alpha-gluca	Cre07.g319	6	6	6	165.87	1522
Cre07.g320150.t1.2	DnaJ-like p	Cre07.g320	1	1	1	39.312	350
Cre07.g320550.t1.2	(1 of 3) K15	Cre07.g320	1	1	1	56.343	520
Cre07.g320950.t1.2	(1 of 2) PTH	Cre07.g320	2	2	2	26.852	238
Cre07.g321400.t1.1	Flagellar As	Cre07.g321	19	19	19	199.24	1914
Cre07.g321800.t1.2	NA	Cre07.g321	2	2	2	24.873	227
Cre07.g321850.t1.2	(1 of 1) PTH	Cre07.g321	2	2	2	21.034	197
Cre07.g322000.t1.2	Cysteine de	Cre07.g322	1	1	1	49.989	491
Cre07.g324050.t1.2	Ubiquitin li	Cre07.g324	1	1	1	84.768	736
Cre07.g324550.t1.1	(1 of 1) 1.1.	Cre07.g324	1	1	1	45.606	421
Cre07.g325400.t1.2	3-Isopropyl	Cre07.g325	14	14	14	42.811	400
Cre07.g325500.t1.1	Magnesium	Cre07.g325	7	7	7	154.27	1399
Cre07.g325600.t1.1	Glutaredox	Cre07.g325	1	1	1	17.246	161
Cre07.g325715.t1.1	(1 of 1) PTH	Cre07.g325	2	2	2	72.503	692
Cre07.g325734.t1.1	(1 of 1) PTH	Cre07.g325	12	12	7	18.054	162
Cre07.g325736.t1.1	(1 of 16) PF	Cre07.g325	35	35	35	56.209	530
Cre07.g325746.t1.1	Ribosomal	Cre07.g325	4	4	4	7.8172	69
Cre07.g325748.t1.1	(1 of 1) 3.5.	Cre07.g325	2	2	2	149.18	1441
Cre07.g325755.t1.1	(1 of 1) PTH	Cre07.g325	2	2	2	13.762	125
Cre07.g325762.t1.1	(1 of 1) PF0	Cre07.g325	2	2	2	94.722	836
Cre07.g326100.t2.1	NA	Cre07.g326	1	1	1	42.913	439
Cre07.g326450.t1.1	Subunit of	Cre07.g326	2	2	2	67.541	630
Cre07.g326800.t1.1	(1 of 1) PTH	Cre07.g326	3	3	3	56.509	507
Cre07.g326950.t1.1	(1 of 2) K15	Cre07.g326	6	6	6	24.729	251
Cre07.g327350.t1.2	(1 of 1) K04	Cre07.g327	1	1	1	19.806	178
Cre07.g327400.t1.1	NADH:ubiq	Cre07.g327	5	5	5	32.141	282
Cre07.g328150.t2.1	Protein disu	Cre07.g328	3	3	3	48.524	453
Cre07.g328200.t1.2	Lumen targ	Cre07.g328	7	7	7	33.102	304
Cre07.g328750.t1.2	NA	Cre07.g328	1	1	1	7.3033	71
Cre07.g328850.t1.2	NimA-relat	Cre07.g328	2	2	2	72.238	693

Cre07.g328900.t1.2	(1 of 6) PTH	Cre07.g328	8	8	8	53.984	484
Cre07.g329650.t1.2	(1 of 1) PTH	Cre07.g329	5	5	5	23.486	214
Cre07.g329700.t1.2	26S protea	Cre07.g329	4	4	4	49.305	443
Cre07.g330200.t1.2	Radial spok	Cre07.g330	4	4	4	29.545	269
Cre07.g330250.t1.2	Subunit H c	Cre07.g330	14	14	14	14.151	130
Cre07.g330300.t1.2	(1 of 2) K14	Cre07.g330	3	3	3	47.672	454
Cre07.g330500.t1.2	(1 of 4) PF0	Cre07.g330	1	1	1	55.133	540
Cre07.g330700.t1.2	Flagellar As	Cre07.g330	1	1	1	134.29	1298
Cre07.g331500.t1.1	Inactive sul	Cre07.g331	7	7	7	46.857	415
Cre07.g331550.t1.2	Phosphose	Cre07.g331	18	18	18	44.129	405
Cre07.g331750.t1.2	(1 of 8) PF1	Cre07.g331	1	1	1	13.868	126
Cre07.g331800.t1.2	Carbohydra	Cre07.g331	1	1	1	41.571	423
Cre07.g331900.t1.2	Ribosomal	Cre07.g331	9	9	9	17.119	151
Cre07.g332300.t1.2	R1 Protein,	Cre07.g332	7	7	7	124.09	1176
Cre07.g332450.t1.2	(1 of 1) PTH	Cre07.g332	5	5	5	38.224	357
Cre07.g332950.t1.2	SF-assembl	Cre07.g332	6	6	6	31.184	276
Cre07.g333150.t1.2	NA	Cre07.g333	4	4	4	27.122	252
Cre07.g333900.t1.1	NADH:ubiq	Cre07.g333	5	5	5	12.518	106
Cre07.g333950.t1.2	SM/Sec1-fa	Cre07.g333	1	1	1	68.868	626
Cre07.g334250.t1.1	(1 of 6) PTH	Cre07.g334	3	3	3	76.864	741
Cre07.g334550.t1.2	Photosyste	Cre07.g334	1	1	1	13.74	126
Cre07.g334600.t1.2	Predicted p	Cre07.g334	1	1	1	9.12	82
Cre07.g334900.t1.1	NA	Cre07.g334	11	11	11	129	1320
Cre07.g335200.t1.1	Translation	Cre07.g335	4	4	4	74.288	683
Cre07.g335300.t1.2	3-ketoacyl-	Cre07.g335	5	5	5	48.667	459
Cre07.g335700.t1.2	NA	Cre07.g335	1	1	1	17.398	161
Cre07.g336200.t1.1	(1 of 1) K11	Cre07.g336	3	3	3	147.99	1335
Cre07.g336400.t1.1	NA	Cre07.g336	1	1	1	43.106	408
Cre07.g336450.t1.2	NA	Cre07.g336	2	2	2	11.846	112
Cre07.g336750.t1.1	NA	Cre07.g336	1	1	1	388.08	3869
Cre07.g336850.t1.2	(1 of 1) KO(	Cre07.g336	2	2	2	27.37	266
Cre07.g336950.t1.1	Starch pho	Cre07.g336	32	32	31	98.295	872
Cre07.g337650.t1.2	Mitochond	Cre07.g337	7	7	7	43.71	396
Cre07.g338050.t1.2	Mitochond	Cre07.g338	5	5	5	39.728	366
Cre07.g338451.t1.1	(1 of 2) 3.1	Cre07.g338	8	8	8	42.32	404
Cre07.g339050.t1.2	(1 of 1) K05	Cre07.g339	1	1	1	33.261	312
Cre07.g339150.t1.1	Chaperonir	Cre07.g339	35	35	31	61.737	577
Cre07.g339250.t1.2	(1 of 1) K12	Cre07.g339	1	1	1	41.707	399
Cre07.g339700.t1.2	Iron-sulfur	Cre07.g339	10	10	10	31.061	284
Cre07.g340200.t1.1	Thylakoid t	Cre07.g340	7	7	7	36.072	333
Cre07.g340350.t1.1	Mitochond	Cre07.g340	32	32	32	63.161	575
Cre07.g340450.t1.1	(1 of 1) PTH	Cre07.g340	5	5	5	512.82	4952
Cre07.g341550.t1.2	(1 of 1) PTH	Cre07.g341	5	5	5	23.009	215
Cre07.g341600.t2.1	GrpE nucle	Cre07.g341	18	18	18	28.028	258
Cre07.g341850.t1.2	(1 of 1) PTH	Cre07.g341	5	5	5	100.07	966
Cre07.g342150.t1.2	Glutamyl-tI	Cre07.g342	4	4	4	57.055	522
Cre07.g342250.t1.2	Prefoldin m	Cre07.g342	4	4	4	16.3	145
Cre07.g342350.t1.2	3',5'-cyclic-	Cre07.g342	1	1	1	89.223	785
Cre07.g343700.t1.2	Dihydrolipc	Cre07.g343	8	8	8	47.558	450
Cre07.g343850.t1.2	(1 of 1) KO(	Cre07.g343	3	3	3	51.966	502

Cre07.g344050.t1.1	(1 of 1) K14	Cre07.g344	2	2	2	147.92	1453
Cre07.g344400.t1.2	(1 of 3) 1.1.	Cre07.g344	35	35	21	54.304	509
Cre07.g344550.t1.2	(1 of 3) 1.1.	Cre07.g344	31	17	17	54.374	513
Cre07.g344600.t1.2	D-3-phospl	Cre07.g344	1	1	1	64.192	616
Cre07.g344900.t2.1	NA	Cre07.g344	3	3	3	43.566	399
Cre07.g344950.t1.2	Light-harve	Cre07.g344	8	8	8	22.844	213
Cre07.g345400.t1.2	Flagellar As	Cre07.g345	1	1	1	111	1074
Cre07.g345500.t1.2	(1 of 1) PF1	Cre07.g345	3	3	3	29.585	275
Cre07.g346150.t1.1	NA	Cre07.g346	1	1	1	178.96	1889
Cre07.g346450.t1.1	(1 of 1) PTH	Cre07.g346	1	1	1	20.67	192
Cre07.g346650.t1.1	(1 of 1) PTH	Cre07.g346	1	1	1	48.681	472
Cre07.g346800.t1.2	(1 of 1) PTH	Cre07.g346	1	1	1	55.076	547
Cre07.g347050.t1.2	Radial spok	Cre07.g347	4	4	4	54.729	500
Cre07.g347100.t1.2	(1 of 2) 5.1.	Cre07.g347	7	7	7	30.833	282
Cre07.g347150.t1.2	NA	Cre07.g347	1	1	1	23.187	218
Cre07.g348250.t1.2	(1 of 1) K14	Cre07.g348	1	1	1	61.244	575
Cre07.g348500.t1.1	NA	Cre07.g348	1	1	1	40.246	356
Cre07.g349200.t1.2	NA	Cre07.g349	9	9	9	16.32	152
Cre07.g349250.t1.2	(1 of 7) PF0	Cre07.g349	3	3	3	23.956	221
Cre07.g349300.t1.2	(1 of 1) KO(	Cre07.g349	1	1	1	90.598	878
Cre07.g349350.t1.2	NA	Cre07.g349	5	5	5	11.339	101
Cre07.g349700.t1.2	(1 of 2) PTH	Cre07.g349	1	1	1	28.884	278
Cre07.g350000.t1.1	(1 of 31) 3.	Cre07.g350	1	1	1	164.05	1564
Cre07.g350500.t1.2	(1 of 2) 6.1.	Cre07.g350	7	7	7	107.63	974
Cre07.g351000.t1.1	WW domai	Cre07.g351	2	2	2	103.99	975
Cre07.g351300.t1.2	(1 of 2) PTH	Cre07.g351	2	2	2	49.402	470
Cre07.g352300.t1.2	(1 of 3) 2.1.	Cre07.g352	2	2	2	39.091	371
Cre07.g352550.t1.2	Putative rh	Cre07.g352	8	8	8	15.592	147
Cre07.g352650.t1.2	(1 of 2) PTH	Cre07.g352	5	5	5	54.189	502
Cre07.g352800.t1.2	(1 of 1) PTH	Cre07.g352	8	8	8	143.74	1396
Cre07.g352850.t1.2	Plastid ribo	Cre07.g352	5	5	5	10.62	98
Cre07.g353230.t1.2	(1 of 8) PTH	Cre07.g353	1	1	1	51.354	495
Cre07.g353450.t1.2	Acetyl-CoA	Cre07.g353	12	12	12	73.223	667
Cre07.g353550.t1.2	Translation	Cre07.g353	2	2	2	21.044	190
Cre07.g353850.t1.2	(1 of 1) K15	Cre07.g353	1	1	1	40.881	418
Cre07.g355600.t1.1	NADPH dep	Cre07.g355	3	3	3	36.529	346
Cre07.g356350.t1.1	1-deoxy-D-	Cre07.g356	11	11	11	78.817	735
Cre07.g356400.t1.2	Centriole p	Cre07.g356	3	3	3	21.302	183
Cre07.g356600.t1.2	(1 of 1) PTH	Cre07.g356	7	7	7	84.662	774
Cre07.g357200.t1.2	UDP-glucos	Cre07.g357	10	1	1	52.493	477
Cre07.g357350.t1.2	Nitrogen re	Cre07.g357	7	7	7	22.074	205
Cre07.g357850.t1.2	Ribosomal	Cre07.g357	12	12	12	14.461	127
Cre08.g358522.t1.1	Cysteine er	Cre08.g358	2	2	2	69.023	652
Cre08.g358526.t1.1	Plastidic AD	Cre08.g358	8	8	8	62.309	577
Cre08.g358539.t1.1	(1 of 2) PTH	Cre08.g358	1	1	1	18.738	173
Cre08.g358540.t1.1	(1 of 3) PF0	Cre08.g358	7	7	7	27.168	247
Cre08.g358548.t1.1	NA	Cre08.g358	3	3	3	9.5337	88
Cre08.g358556.t2.1	Ribosomal	Cre08.g358	6	6	6	6.4924	56
Cre08.g358562.t1.1	Chaperonir	Cre08.g358	15	15	15	22.774	216
Cre08.g358580.t1.1	Carbamoyl	Cre08.g358	43	43	43	128.18	1177

Cre08.g359350.t1.2	(1 of 1) K01	Cre08.g359	19	19	19	56.195	515
Cre08.g359750.t2.1	Ribosomal	Cre08.g359	11	11	11	22.13	190
Cre08.g360900.t1.2	Ribosomal	Cre08.g360	4	4	4	16.629	145
Cre08.g360950.t1.1	NA	Cre08.g360	2	2	2	24.383	214
Cre08.g361850.t1.2	(1 of 1) PF0	Cre08.g361	8	8	8	25.706	244
Cre08.g362450.t1.2	Alpha-amyl	Cre08.g362	16	16	16	77.555	706
Cre08.g362750.t1.2	(1 of 1) K01	Cre08.g362	1	1	1	45.546	434
Cre08.g362900.t1.1	Lumenal Ps	Cre08.g362	8	8	8	29.345	265
Cre08.g364650.t1.1	(1 of 3) 6.1.	Cre08.g364	4	4	4	35.878	344
Cre08.g364700.t2.1	(1 of 2) KO(	Cre08.g364	2	2	2	36.061	352
Cre08.g364800.t1.2	(1 of 1) 6.3.	Cre08.g364	25	25	25	150.65	1403
Cre08.g365400.t1.2	Plastid ribo	Cre08.g365	8	8	8	14.754	136
Cre08.g365600.t1.2	(1 of 1) 2.7.	Cre08.g365	2	2	2	118.13	1175
Cre08.g365632.t1.1	(1 of 14) KC	Cre08.g365	7	7	7	35.504	341
Cre08.g365692.t1.1	(1 of 2) 1.8.	Cre08.g365	12	12	11	54.097	490
Cre08.g365900.t1.2	Stress-relat	Cre08.g365	3	2	2	27.556	253
Cre08.g366400.t2.1	(1 of 1) K1(	Cre08.g366	3	3	3	39.336	396
Cre08.g367000.t1.2	NA	Cre08.g367	1	1	1	63.863	673
Cre08.g367200.t1.1	Subunit of (	Cre08.g367	2	2	2	87.936	807
Cre08.g367300.t1.1	(1 of 2) PF1	Cre08.g367	1	1	1	88.41	837
Cre08.g367350.t1.2	(1 of 29) PT	Cre08.g367	3	3	3	56.163	531
Cre08.g367500.t1.1	Stress-relat	Cre08.g367	9	9	8	28.224	259
Cre08.g367600.t1.2	O-acetylser	Cre08.g367	5	5	5	34.765	325
Cre08.g368450.t2.1	(1 of 1) K12	Cre08.g368	1	1	1	30.784	298
Cre08.g368500.t1.2	(1 of 1) K14	Cre08.g368	2	2	2	20.775	181
Cre08.g368900.t2.1	(1 of 1) PTH	Cre08.g368	4	4	4	99.466	949
Cre08.g368950.t1.2	3-dehydroc	Cre08.g368	6	6	6	51.382	476
Cre08.g370450.t1.2	Mitochond	Cre08.g370	5	5	5	28.416	264
Cre08.g370550.t1.1	(1 of 1) 1.1.	Cre08.g370	2	2	2	62.85	596
Cre08.g370601.t1.1	(1 of 1) K14	Cre08.g370	2	2	2	89.246	858
Cre08.g370650.t1.2	(1 of 2) 3.1.	Cre08.g370	8	8	8	35.812	345
Cre08.g371450.t2.1	Zeta subun	Cre08.g371	5	5	5	20.502	184
Cre08.g371650.t1.2	TatB-like se	Cre08.g371	2	2	2	25.486	253
Cre08.g372000.t1.2	Predicted p	Cre08.g372	3	3	3	34.941	318
Cre08.g372100.t1.2	Heat shock	Cre08.g372	53	53	49	71.214	651
Cre08.g372450.t1.2	Oxygen evo	Cre08.g372	36	36	36	21.824	199
Cre08.g372800.t1.1	(1 of 1) K12	Cre08.g372	4	4	4	132.11	1214
Cre08.g372950.t1.2	4-hydroxy-:	Cre08.g372	8	8	8	51.699	465
Cre08.g373100.t1.1	Cytochrom	Cre08.g373	12	12	12	63.466	586
Cre08.g373250.t1.2	20S protea	Cre08.g373	1	1	1	25.409	235
Cre08.g374800.t1.2	(1 of 1) PTH	Cre08.g374	1	1	1	62.518	622
Cre08.g375250.t1.1	Mitochond	Cre08.g375	1	1	1	12.928	116
Cre08.g375500.t1.2	Glucosamir	Cre08.g375	1	1	1	77.724	699
Cre08.g375550.t1.2	(1 of 35) PF	Cre08.g375	2	2	2	24.959	236
Cre08.g376100.t1.2	(1 of 2) 3.1.	Cre08.g376	4	4	4	33.55	306
Cre33.g759047.t1.1	(1 of 3) K1(	Cre33.g759	1	1	1	11.928	105
Cre08.g377200.t1.1	(1 of 1) K11	Cre08.g377	1	1	1	218.34	2130
Cre08.g377350.t1.1	Adenylate l	Cre08.g377	1	1	1	113.59	1090
Cre08.g378000.t1.2	(1 of 1) K18	Cre08.g378	3	3	3	42.604	423
Cre08.g378050.t1.2	NADH:ubiq	Cre08.g378	5	5	5	15.27	130

Cre08.g378150.t1.1	Glucose-6-p	Cre08.g378	4	4	4	66.41	598
Cre08.g378750.t1.1	NA	Cre08.g378	3	3	3	71.604	691
Cre08.g378850.t1.2	Ribose-pho	Cre08.g378	7	7	7	44.278	416
Cre08.g378950.t1.1	(1 of 6) PTH	Cre08.g378	1	1	1	93.287	937
Cre08.g379000.t1.2	NA	Cre08.g379	1	1	1	10.983	97
Cre08.g379200.t1.1	Conserved	Cre08.g379	3	3	3	37.796	346
Cre08.g379450.t1.1	(1 of 1) K01	Cre08.g379	1	1	1	156.3	1526
Cre08.g379950.t1.1	(1 of 2) PTH	Cre08.g379	2	2	2	39.598	384
Cre08.g380000.t1.2	(1 of 1) PTH	Cre08.g380	1	1	1	101.01	917
Cre08.g380201.t1.1	(1 of 1) 1.1.	Cre08.g380	6	6	6	59.273	566
Cre08.g380250.t1.2	Small prote	Cre08.g380	9	9	9	14.139	131
Cre08.g381450.t2.1	(1 of 85) PT	Cre08.g381	6	6	6	54.317	530
Cre08.g381516.t1.1	(1 of 1) K11	Cre08.g381	1	1	1	38.095	361
Cre08.g381650.t1.1	(1 of 1) PTH	Cre08.g381	1	1	1	52.303	522
Cre08.g381800.t1.1	(1 of 2) 5.3.	Cre08.g381	1	1	1	22.383	200
Cre08.g382500.t1.2	Ribosomal	Cre08.g382	8	8	8	11.818	107
Cre08.g382650.t1.1	Bi-ubiquitir	Cre08.g382	1	1	1	80.161	758
Cre08.g382800.t1.2	(1 of 1) PF0	Cre08.g382	7	7	7	75.762	686
Cre08.g383101.t1.1	NA	Cre08.g383	1	1	1	18.819	162
Cre08.g384000.t1.1	Cytochrom	Cre08.g384	8	8	8	179.05	1869
Cre08.g384200.t1.2	(1 of 3) PTH	Cre08.g384	2	2	2	101.7	1000
Cre08.g384864.t1.2	(1 of 1) PF0	Cre08.g384	1	1	1	153.42	1533
Cre08.g384900.t1.2	(1 of 268) P	Cre08.g384	2	2	2	33.489	300
Cre08.g385200.t1.1	Small nucle	Cre08.g385	1	1	1	10.201	87
Cre08.g385500.t2.1	Alpha-amyl	Cre08.g385	1	1	1	45.611	405
Cre09.g386200.t1.1	(1 of 85) PT	Cre09.g386	4	4	4	71.889	689
Cre09.g386400.t1.2	Ubiquitin-a	Cre09.g386	24	24	24	114.24	1061
Cre09.g386550.t1.2	(1 of 1) K12	Cre09.g386	2	2	2	50.483	495
Cre09.g386650.t2.1	ADP/ATP c	Cre09.g386	23	23	23	33.527	308
Cre09.g386731.t1.1	(1 of 2) K13	Cre09.g386	2	2	2	93.494	891
Cre09.g386735.t1.1	Dihydrolipo	Cre09.g386	11	11	11	63.852	623
Cre09.g386736.t1.1	Flagellar As	Cre09.g386	1	1	1	221.94	2141
Cre09.g386750.t1.2	Heat shock	Cre09.g386	38	38	36	80.681	705
Cre09.g386758.t1.1	Acetolactat	Cre09.g386	15	15	15	74.062	683
Cre09.g387134.t1.1	(1 of 4) PTH	Cre09.g387	1	1	1	28.598	260
Cre09.g387171.t2.1	(1 of 1) 1.1.	Cre09.g387	11	11	11	35.005	310
Cre09.g387393.t1.1	(1 of 4) K06	Cre09.g387	3	3	3	61.5	575
Cre09.g387689.t1.1	Flagellar As	Cre09.g387	1	1	1	172.47	1638
Cre09.g387726.t1.1	Aspartate a	Cre09.g387	3	3	3	46.532	433
Cre09.g387800.t1.2	Pre-apoferi	Cre09.g387	4	4	4	27.291	249
Cre09.g387875.t1.1	Soluble ino	Cre09.g387	10	10	10	22.175	192
Cre09.g387949.t1.1	NA	Cre09.g387	3	3	3	46.791	439
Cre09.g388200.t1.1	Ribosomal	Cre09.g388	13	13	13	26.237	230
Cre09.g388319.t1.1	(1 of 1) PTH	Cre09.g388	1	1	1	58.831	561
Cre09.g388372.t1.2	Chloroplast	Cre09.g388	1	1	1	143.51	1375
Cre09.g388467.t1.1	Rab GDP di	Cre09.g388	13	13	13	49.523	442
Cre09.g388500.t1.2	(1 of 12) PF	Cre09.g388	4	4	4	89.007	834
Cre09.g388726.t1.1	(1 of 1) 2.7.	Cre09.g388	9	9	2	39.948	370
Cre09.g388726.t3.1	(1 of 1) 2.7.	Cre09.g388	8	1	1	26.794	242
Cre09.g388800.t1.2	Glutamate	Cre09.g388	3	3	3	48.565	448

Cre09.g389430.t1.1	(1 of 1) PTH	Cre09.g389	7	7	7	55.832	499
Cre09.g389689.t1.1	Aspartate s	Cre09.g389	29	29	29	39.934	370
Cre09.g389912.t1.1	(1 of 1) K14	Cre09.g389	5	5	5	89.237	884
Cre09.g390050.t1.2	Molybdenu	Cre09.g390	2	2	2	16.527	165
Cre09.g390615.t1.1	Triacylglyce	Cre09.g390	15	15	15	52.143	483
Cre09.g390763.t1.1	Small Rab-r	Cre09.g390	2	2	2	23.611	213
Cre09.g390986.t1.1	Aspartyl-tR	Cre09.g390	1	1	1	69.803	639
Cre09.g391023.t1.1	Serine/thre	Cre09.g391	6	6	6	35.675	315
Cre09.g391097.t2.1	Ribosomal	Cre09.g391	6	6	6	17.036	149
Cre09.g391650.t1.2	Hybrid-clus	Cre09.g391	14	5	1	69.735	646
Cre09.g391900.t1.1	Cytosolic th	Cre09.g391	5	5	5	11.844	113
Cre09.g391949.t1.1	U2 snRNP a	Cre09.g391	3	3	3	56.219	539
Cre09.g392282.t1.1	Dynein hea	Cre09.g392	2	2	2	467	4165
Cre09.g392350.t2.1	(1 of 90) PF	Cre09.g392	13	13	13	15.784	165
Cre09.g392467.t1.1	Copper cha	Cre09.g392	2	2	2	7.4356	70
Cre09.g392500.t1.2	NA	Cre09.g392	5	5	5	36.706	340
Cre09.g392692.t1.1	Exon juncti	Cre09.g392	2	2	2	17.343	148
Cre09.g392867.t1.1	Flagella me	Cre09.g392	11	7	7	432.52	4389
Cre22.g754047.t1.1	NA	Cre22.g754	1	1	1	27.407	267
Cre09.g393136.t1.1	(1 of 1) PTH	Cre09.g393	4	4	4	74.605	731
Cre09.g393150.t1.2	Multicoppe	Cre09.g393	1	1	1	122.8	1142
Cre09.g393173.t1.1	Early light-i	Cre09.g393	1	1	1	18.747	175
Cre09.g393200.t1.2	Heat shock	Cre09.g393	29	25	25	70.67	663
Cre09.g393350.t1.2	(1 of 4) PF0	Cre09.g393	1	1	1	27.031	259
Cre09.g393358.t1.1	(1 of 1) K13	Cre09.g393	15	15	15	37.542	361
Cre09.g393450.t1.1	Flagellar As	Cre09.g393	15	3	3	159.44	1520
Cre09.g393506.t1.1	Hybrid-clus	Cre09.g393	15	1	1	70.176	649
Cre09.g393543.t1.1	Hybrid-clus	Cre09.g393	16	16	0	70.428	654
Cre09.g393700.t1.1	Matrix met	Cre09.g393	9	9	9	71.019	647
Cre09.g393728.t1.1	(1 of 3) K05	Cre09.g393	4	4	4	74.661	710
Cre09.g393765.t1.1	Chitinase-r	Cre09.g393	2	2	2	22.367	202
Cre09.g393800.t1.1	NA	Cre09.g393	1	1	1	49.158	466
Cre09.g393954.t1.1	Flagellar As	Cre09.g393	2	2	2	26.974	240
Cre09.g394102.t1.1	(1 of 1) PTH	Cre09.g394	2	2	2	62.474	592
Cre09.g394200.t1.1	Flagellar As	Cre09.g394	26	26	14	156.48	1496
Cre09.g394251.t1.1	Central pai	Cre09.g394	6	6	6	54.654	512
Cre09.g394399.t1.1	(1 of 1) K14	Cre09.g394	5	5	5	84.445	792
Cre09.g394436.t1.1	(1 of 1) PF0	Cre09.g394	8	8	8	79.651	763
Cre09.g394450.t1.2	RAN bindin	Cre09.g394	8	8	8	26.416	246
Cre09.g394473.t1.1	Low-CO2-ir	Cre09.g394	1	1	1	62.777	590
Cre09.g394510.t1.1	(1 of 19) PF	Cre09.g394	1	1	1	62.96	600
Cre09.g394550.t1.2	Ribose-pho	Cre09.g394	14	14	14	38.488	348
Cre09.g394621.t2.1	(1 of 36) PT	Cre09.g394	3	3	3	183.42	1748
Cre09.g394750.t1.2	Plastid ribo	Cre09.g394	12	12	12	48.299	436
Cre09.g395250.t1.1	Flagellar As	Cre09.g395	1	1	1	49.796	485
Cre09.g395350.t1.1	Mitochond	Cre09.g395	2	2	2	12.807	111
Cre09.g395650.t1.1	(1 of 2) PF1	Cre09.g395	3	3	3	22.766	214
Cre09.g395800.t1.2	(1 of 1) PTH	Cre09.g395	1	1	1	17.883	162
Cre09.g396100.t1.2	Cell wall pr	Cre09.g396	5	5	5	18.236	175
Cre09.g396213.t1.1	Oxygen-ev	Cre09.g396	41	41	41	30.579	291

Cre09.g396252.t1.1	Glutathion	Cre09.g396	12	12	12	54.651	514
Cre09.g396300.t1.2	Protoporph	Cre09.g396	17	17	17	59.802	563
Cre09.g396326.t1.1	(1 of 2) PF0	Cre09.g396	3	3	3	114.28	1173
Cre09.g396400.t1.2	Bi-ubiquitir	Cre09.g396	13	13	13	17.196	153
Cre09.g396500.t1.1	NA	Cre09.g396	8	8	8	31.066	289
Cre09.g396600.t1.1	Iron hydrog	Cre09.g396	5	5	5	53.721	505
Cre09.g396650.t1.2	Phosphate	Cre09.g396	3	3	3	84.617	792
Cre09.g396800.t1.1	NA	Cre09.g396	1	1	1	43.625	416
Cre09.g397200.t1.2	T-complex	Cre09.g397	13	13	13	59.81	547
Cre09.g397512.t1.1	(1 of 1) K09	Cre09.g397	1	1	1	45.185	448
Cre09.g397549.t1.1	(1 of 1) PF0	Cre09.g397	3	3	3	94.369	970
Cre09.g397660.t1.1	NA	Cre09.g397	2	2	2	31.197	295
Cre09.g397697.t1.1	Ribosomal	Cre09.g397	24	24	24	44.91	410
Cre09.g398882.t1.1	(1 of 1) K10	Cre09.g398	1	1	1	46.593	427
Cre09.g398900.t1.1	Vegetative	Cre09.g398	6	6	6	54.219	555
Cre09.g399030.t1.1	4-hydroxyp	Cre09.g399	7	7	7	47.201	432
Cre09.g399178.t1.1	COP signalo	Cre09.g399	2	2	2	40.182	373
Cre09.g399250.t1.2	Ketoacid iso	Cre09.g399	2	2	2	21.649	207
Cre09.g400050.t1.1	NA	Cre09.g400	7	7	7	60.072	588
Cre09.g400650.t1.2	Ribosomal	Cre09.g400	19	19	19	28.435	248
Cre09.g401108.t1.1	NA	Cre09.g401	1	1	1	53.126	517
Cre09.g401350.t1.2	NA	Cre09.g401	1	1	1	25.284	237
Cre09.g401515.t1.1	NA	Cre09.g401	1	1	1	41.01	394
Cre09.g401600.t1.2	(1 of 2) PF0	Cre09.g401	2	2	2	15.124	143
Cre09.g401626.t1.1	(1 of 110) 3	Cre09.g401	1	1	1	126.19	1247
Cre09.g401663.t1.1	(1 of 1) K14	Cre09.g401	1	1	1	41.286	371
Cre09.g401886.t1.1	L-ascorbate	Cre09.g401	8	8	8	39.449	372
Cre09.g401900.t1.2	NA	Cre09.g401	10	10	10	132.27	1276
Cre09.g401923.t1.1	NA	Cre09.g401	1	1	1	78.047	757
Cre09.g402100.t1.2	NA	Cre09.g402	1	1	1	14.645	127
Cre09.g402219.t2.1	Low-CO2-in	Cre09.g402	3	3	3	7.2375	72
Cre09.g402300.t1.2	Mitochond	Cre09.g402	3	3	3	10.015	89
Cre09.g402775.t1.1	(1 of 1) PF0	Cre09.g402	3	3	3	85.086	778
Cre09.g402950.t1.1	Predicted p	Cre09.g402	1	1	1	47.203	445
Cre09.g403182.t1.1	(1 of 1) K11	Cre09.g403	1	1	1	194.91	1794
Cre09.g403219.t1.1	DNA-direct	Cre09.g403	1	1	1	23.818	202
Cre09.g403800.t1.2	Flagellar ou	Cre09.g403	8	8	8	519.88	4568
Cre09.g403900.t1.2	Flagellar As	Cre09.g403	1	1	1	38.389	348
Cre09.g404000.t1.1	(1 of 2) PTH	Cre09.g404	10	10	10	22.61	215
Cre09.g404400.t1.2	(1 of 1) K14	Cre09.g404	1	1	1	18.364	165
Cre09.g404650.t1.2	(1 of 1) PTH	Cre09.g404	4	4	4	98.82	946
Cre09.g405050.t1.2	Vacuolar A	Cre09.g405	5	5	5	29.669	269
Cre09.g405400.t1.2	Prefoldin m	Cre09.g405	2	2	2	15.117	132
Cre09.g405800.t1.2	(1 of 1) PTH	Cre09.g405	2	2	2	21.206	197
Cre09.g405850.t1.1	NADH:ubiq	Cre09.g405	1	1	1	52.607	467
Cre09.g406050.t1.2	CTP syntha	Cre09.g406	10	10	10	65.238	595
Cre09.g406200.t1.2	Prolyl-tRNA	Cre09.g406	4	4	4	61.323	561
Cre09.g406600.t1.1	NA	Cre09.g406	10	10	10	37.633	354
Cre09.g406983.t1.1	(1 of 6) PTH	Cre09.g406	2	2	2	31.972	278
Cre09.g407250.t2.1	Flagellar As	Cre09.g407	2	2	2	16.648	149

Cre09.g407600.t1.2	(1 of 1) PTH	Cre09.g407	1	1	1	24.967	235
Cre09.g407650.t1.2	NA	Cre09.g407	1	1	1	20.265	189
Cre09.g407700.t1.2	Cysteine er	Cre09.g407	9	9	9	53.919	501
Cre09.g408000.t1.1	(1 of 3) PTH	Cre09.g408	4	4	4	30.683	276
Cre09.g408200.t1.2	Serine/argi	Cre09.g408	9	9	9	22.101	200
Cre09.g408300.t1.2	NA	Cre09.g408	3	3	3	9.9462	88
Cre09.g408550.t1.2	(1 of 1) K10	Cre09.g408	1	1	1	39.863	391
Cre09.g408851.t1.1	(1 of 2) 3.4	Cre09.g408	3	3	3	47.427	441
Cre09.g409100.t1.2	Uroporphyı	Cre09.g409	2	2	2	30.562	295
Cre09.g409350.t1.2	Fe-S ABC tr	Cre09.g409	12	12	12	69.918	618
Cre09.g409500.t1.2	(1 of 1) PTH	Cre09.g409	1	1	1	32.534	332
Cre09.g409850.t1.2	NA	Cre09.g409	1	1	1	17.501	176
Cre09.g410250.t1.1	NA	Cre09.g410	2	2	2	18.734	188
Cre09.g410600.t1.1	(1 of 3) K17	Cre09.g410	5	5	5	38.699	361
Cre09.g410650.t1.2	N-5-phospl	Cre09.g410	5	5	5	46.533	431
Cre09.g410700.t1.2	NADP-depe	Cre09.g410	24	24	24	44.852	415
Cre09.g411100.t2.1	Ribosomal	Cre09.g411	10	10	10	19.308	173
Cre09.g411200.t1.2	Rieske [2Fe	Cre09.g411	3	3	3	33.172	306
Cre09.g411900.t1.1	Serine hydı	Cre09.g411	20	20	20	52.743	487
Cre09.g412100.t1.2	Photosyste	Cre09.g412	12	12	12	24.057	227
Cre09.g413650.t1.1	(1 of 1) PTH	Cre09.g413	1	1	1	142.95	1438
Cre09.g414050.t1.2	(1 of 1) K04	Cre09.g414	2	2	2	49.648	455
Cre09.g414200.t1.2	Subunit of	Cre09.g414	3	3	3	36.867	320
Cre09.g414800.t2.1	(1 of 1) K16	Cre09.g414	3	3	3	65.495	611
Cre09.g415400.t1.1	(1 of 1) PTH	Cre09.g415	1	1	1	262.08	2596
Cre09.g415550.t1.2	Mitochond	Cre09.g415	24	24	24	48.412	494
Cre09.g415700.t1.2	Carbonic ar	Cre09.g415	4	4	4	33.459	310
Cre09.g415800.t1.2	(1 of 1) K16	Cre09.g415	18	18	18	78.821	760
Cre09.g415850.t1.2	Gamma car	Cre09.g415	10	10	10	32.692	312
Cre09.g415950.t1.2	Plastid ribo	Cre09.g415	11	11	11	22.235	207
Cre09.g416050.t1.2	Argininosuc	Cre09.g416	23	23	23	49.021	441
Cre09.g416100.t1.2	DnaJ-like p	Cre09.g416	1	1	1	41.33	381
Cre09.g416150.t1.2	Mitochond	Cre09.g416	10	10	10	22.203	207
Cre09.g416200.t1.2	PsbB mRNA	Cre09.g416	1	1	1	72.55	662
Cre09.g416350.t1.2	(1 of 2) K11	Cre09.g416	18	18	18	37.436	334
Cre09.g416750.t1.2	T-complex	Cre09.g416	10	10	10	56.779	526
Cre09.g416800.t1.2	NA	Cre09.g416	2	2	2	22.779	213
Cre09.g416850.t1.2	(1 of 543) 2	Cre09.g416	2	2	2	165.19	1690
Cre09.g417150.t1.2	Mono-func	Cre09.g417	9	9	9	56.157	493
Cre09.g417200.t1.2	(1 of 1) K15	Cre09.g417	6	6	6	42.949	420
Cre10.g417500.t1.2	Peptidyl-pr	Cre10.g417	2	2	2	34.161	323
Cre10.g417700.t1.2	Ribosomal	Cre10.g417	18	18	18	43.508	386
Cre10.g417950.t1.2	(1 of 1) K14	Cre10.g417	5	5	5	86.852	794
Cre10.g418100.t1.1	20S protea	Cre10.g418	3	3	3	27.646	253
Cre10.g418250.t1.2	Basal body	Cre10.g418	1	1	1	174.64	1640
Cre10.g418450.t1.2	NA	Cre10.g418	4	4	4	8.8902	82
Cre10.g419050.t2.1	Mitochond	Cre10.g419	11	11	11	80.779	799
Cre10.g419550.t2.1	(1 of 2) PTH	Cre10.g419	1	1	1	21.573	197
Cre10.g419950.t1.1	(1 of 5) PF0	Cre10.g419	5	5	5	62.404	576
Cre10.g420100.t1.2	DnaJ-like p	Cre10.g420	4	4	4	36.876	341

Cre10.g420350.t1.2	Photosyste	Cre10.g42(	4	4	4	10.77	97
Cre10.g420550.t1.1	(1 of 7) 3.4.	Cre10.g42(	1	1	1	52.508	503
Cre10.g420700.t1.2	Mitochond	Cre10.g42(	5	5	5	8.2685	75
Cre10.g420750.t1.2	Ribosomal	Cre10.g42(	5	5	5	12.001	110
Cre10.g421300.t1.2	NA	Cre10.g421	2	2	2	42.537	372
Cre10.g421600.t1.2	(1 of 2) 6.1.	Cre10.g421	7	7	7	69.591	623
Cre10.g421700.t1.2	Glycerol-3-	Cre10.g421	4	4	4	76.883	705
Cre10.g422000.t1.2	tRNA (guan	Cre10.g422	4	4	4	63.526	599
Cre10.g422150.t1.1	(1 of 1) 3.4.	Cre10.g422	1	1	1	72.179	677
Cre10.g422300.t1.2	Thioredoxi	Cre10.g422	10	10	10	21.395	196
Cre10.g422600.t1.1	NADH:ubiq	Cre10.g422	8	8	8	52.233	484
Cre10.g423250.t1.2	NAD-deper	Cre10.g423	3	3	3	36.37	353
Cre10.g423300.t1.1	(1 of 1) 3.4.	Cre10.g423	2	2	2	83.982	815
Cre10.g423500.t1.2	Heme oxyg	Cre10.g423	4	4	4	28.831	263
Cre10.g423550.t1.1	(1 of 1) 4.1.	Cre10.g423	1	1	1	42.375	412
Cre10.g423650.t1.2	Plastid ribo	Cre10.g423	4	4	4	18.535	176
Cre10.g424100.t1.2	Inorganic p	Cre10.g424	22	22	22	31.133	280
Cre10.g424250.t1.2	Flagellar As	Cre10.g424	1	1	1	27.71	242
Cre10.g424400.t1.2	20S protea	Cre10.g424	3	3	3	29.133	270
Cre10.g424450.t1.2	40 kDa trar	Cre10.g424	1	1	1	37.155	339
Cre10.g424500.t1.2	(1 of 1) K0(	Cre10.g424	1	1	1	31.138	310
Cre10.g424900.t1.2	(1 of 2) PTH	Cre10.g424	1	1	1	36.797	336
Cre10.g425675.t1.1	(1 of 1) PTH	Cre10.g425	1	1	1	39.191	381
Cre10.g425900.t1.2	Light-harve	Cre10.g425	14	14	14	28.228	257
Cre10.g425950.t1.2	(1 of 1) PTH	Cre10.g425	2	2	2	33.678	330
Cre10.g426335.t2.1	(1 of 5) PF0	Cre10.g426	2	2	2	20.878	195
Cre10.g427250.t1.2	Profilin	Cre10.g427	2	2	2	13.904	131
Cre10.g427300.t1.2	Radial spok	Cre10.g427	4	4	4	77.362	738
Cre10.g427700.t1.2	(1 of 1) PTH	Cre10.g427	16	16	16	67.315	646
Cre10.g428050.t1.1	NA	Cre10.g428	1	1	1	120.37	1144
Cre10.g428200.t1.2	(1 of 1) PTH	Cre10.g428	2	2	2	35.93	356
Cre10.g428750.t1.1	(1 of 1) K14	Cre10.g428	5	5	5	224.33	2183
Cre10.g429100.t1.2	(1 of 1) PTH	Cre10.g429	24	24	24	61.392	546
Cre10.g429150.t1.2	Anthranilat	Cre10.g429	3	3	3	36.054	349
Cre10.g429200.t1.1	(1 of 5) 2.1.	Cre10.g429	1	1	1	78.254	765
Cre10.g430000.t1.1	NA	Cre10.g430	3	3	3	25.321	264
Cre10.g430150.t1.2	(1 of 1) PF1	Cre10.g430	2	2	2	49.555	449
Cre10.g430300.t1.2	NA	Cre10.g430	1	1	1	27.12	250
Cre10.g430350.t1.2	NA	Cre10.g430	4	4	4	39.611	363
Cre10.g430400.t1.2	Ribosomal	Cre10.g430	3	3	3	10.585	94
Cre10.g430501.t1.1	(1 of 1) PTH	Cre10.g430	18	18	18	72.891	690
Cre10.g431400.t1.2	Nuclear RN	Cre10.g431	1	1	1	36.84	335
Cre10.g431850.t1.2	(1 of 1) PTH	Cre10.g431	2	2	2	19.249	176
Cre10.g432600.t1.1	(1 of 19) 3.	Cre10.g432	1	1	1	201.54	1933
Cre10.g432800.t1.2	Ribosomal	Cre10.g432	13	13	13	30.706	279
Cre10.g432850.t1.2	Flagellar As	Cre10.g432	1	1	1	26.575	246
Cre10.g432900.t1.2	(1 of 3) 1.1.	Cre10.g432	2	2	2	44.64	411
Cre10.g433000.t1.1	(1 of 1) K14	Cre10.g433	6	6	6	117.67	1109
Cre10.g433600.t1.2	(1 of 1) 1.5.	Cre10.g433	21	21	21	65.896	600
Cre10.g433950.t1.1	(1 of 2) PTH	Cre10.g433	7	7	7	16.085	151

Cre10.g434200.t1.1	NA	Cre10.g434	6	6	6	18.84	173
Cre10.g434400.t1.2	Flagellar ce	Cre10.g434	2	2	2	237.48	2301
Cre10.g434450.t1.2	NADH:ubiq	Cre10.g434	14	14	14	43.654	397
Cre10.g434650.t1.1	Copper tra	Cre10.g434	1	1	1	73.082	721
Cre10.g434750.t1.2	Acetohydrc	Cre10.g434	26	26	26	60.212	555
Cre10.g435200.t1.2	NA	Cre10.g435	1	1	1	21.367	184
Cre10.g435300.t2.1	Aspartyl an	Cre10.g435	4	4	4	57.119	537
Cre10.g435550.t1.2	Deoxyhypu	Cre10.g435	1	1	1	34.896	319
Cre10.g435800.t1.2	NAD-deper	Cre10.g435	11	11	11	44.738	401
Cre10.g435850.t1.2	Predicted p	Cre10.g435	3	3	3	27.771	266
Cre10.g436050.t1.2	Fe superox	Cre10.g436	11	11	11	25.915	234
Cre10.g436350.t1.1	Shikimate k	Cre10.g436	8	8	8	36.555	332
Cre10.g436550.t1.2	Low-CO2-ir	Cre10.g436	22	22	22	32.314	317
Cre10.g437100.t1.1	(1 of 1) KO(	Cre10.g437	1	1	1	36.859	344
Cre10.g437450.t1.2	NA	Cre10.g437	2	2	2	48.799	460
Cre10.g438550.t1.2	TatA-like se	Cre10.g438	4	4	4	11.867	114
Cre10.g438600.t1.2	(1 of 1) KO(	Cre10.g438	1	1	1	6.5125	62
Cre10.g438650.t1.2	Adenylate l	Cre10.g438	1	1	1	27.458	253
Cre10.g438700.t1.1	(1 of 1) K14	Cre10.g438	1	1	1	101.81	963
Cre10.g439100.t1.2	T-complex	Cre10.g439	5	5	5	59.325	551
Cre10.g439150.t1.2	26S protea	Cre10.g439	10	10	10	47.666	428
Cre10.g439400.t1.1	Glutamyl tF	Cre10.g439	5	5	5	54.826	533
Cre10.g439550.t2.1	(1 of 3) PTH	Cre10.g439	2	2	2	45.493	421
Cre10.g439900.t1.2	ER-located	Cre10.g439	5	5	5	120.89	1124
Cre10.g440050.t1.2	NAD-deper	Cre10.g440	16	16	16	47.99	439
Cre10.g440450.t1.2	Photosyste	Cre10.g440	5	5	5	15.879	144
Cre10.g440800.t1.1	NA	Cre10.g440	1	1	1	84.643	781
Cre10.g441200.t1.2	(1 of 1) K18	Cre10.g441	8	8	8	106.37	1018
Cre10.g441350.t2.1	NA	Cre10.g441	1	1	1	108.02	1010
Cre10.g441400.t1.2	Nucleolar p	Cre10.g441	17	17	17	55.472	508
Cre10.g441450.t1.2	(1 of 1) K14	Cre10.g441	1	1	1	97.164	875
Cre10.g441700.t1.1	NA	Cre10.g441	1	1	1	192.93	1845
Cre10.g442650.t1.2	(1 of 1) PTH	Cre10.g442	1	1	1	86.471	825
Cre10.g442950.t1.2	(1 of 2) PF1	Cre10.g442	1	1	1	36.182	343
Cre10.g443250.t1.2	T-complex	Cre10.g443	13	13	13	60.77	555
Cre10.g443850.t1.1	(1 of 1) PTH	Cre10.g443	1	1	1	64.113	607
Cre10.g444700.t1.1	Starch Brar	Cre10.g444	5	5	5	98.282	868
Cre10.g444850.t1.1	Voltage-ga	Cre10.g444	1	1	1	404.15	3838
Cre10.g445600.t1.1	(1 of 1) K14	Cre10.g445	1	1	1	151.18	1406
Cre10.g445750.t1.2	NA	Cre10.g445	1	1	1	10.518	97
Cre10.g446100.t1.2	Chloroplast	Cre10.g446	1	1	1	16.691	152
Cre10.g446550.t1.2	Vacuolar A	Cre10.g446	2	2	2	13.316	121
Cre10.g447100.t1.2	(1 of 2) K15	Cre10.g447	6	6	6	27.323	253
Cre10.g447300.t1.2	(1 of 1) K11	Cre10.g447	1	1	1	49.968	472
Cre10.g449250.t1.2	Kinesin-II-a	Cre10.g449	1	1	1	95.118	847
Cre10.g449350.t1.2	(1 of 1) PTH	Cre10.g449	1	1	1	15.886	146
Cre10.g449550.t1.2	Peroxiredo	Cre10.g449	5	5	5	16.536	161
Cre10.g449850.t1.1	NA	Cre10.g449	2	2	2	139.01	1411
Cre10.g450400.t1.2	NADH:ubiq	Cre10.g450	6	6	6	30.611	282
Cre10.g450450.t1.2	Flagellar As	Cre10.g450	4	4	4	55.535	524

Cre10.g451400.t1.1	Molybdenu	Cre10.g451	2	2	2	48.999	478
Cre10.g451752.t1.1	(1 of 70) PF	Cre10.g451	2	2	2	58.358	553
Cre10.g451900.t1.1	Threonine :	Cre10.g451	30	30	30	54.413	498
Cre10.g451950.t1.2	Alanine am	Cre10.g451	16	16	16	57.821	521
Cre10.g452050.t1.2	Light-harve	Cre10.g452	9	9	9	28.702	264
Cre10.g452350.t1.1	NA	Cre10.g452	6	6	6	16.343	153
Cre10.g452450.t1.2	110 kDa tra	Cre10.g452	20	20	20	115.13	1046
Cre10.g452600.t1.2	(1 of 1) KO(	Cre10.g452	1	1	1	73.45	744
Cre10.g452800.t1.2	Low-CO2-ir	Cre10.g452	21	21	21	48.005	448
Cre10.g453450.t1.2	Small nucle	Cre10.g453	1	1	1	12.609	110
Cre10.g454150.t1.2	(1 of 1) 2.3.	Cre10.g454	3	3	3	17.273	169
Cre10.g455000.t2.1	NA	Cre10.g455	4	4	4	60.914	565
Cre10.g455231.t1.2	(1 of 1) 2.8.	Cre10.g455	1	1	1	59.249	555
Cre10.g455300.t1.2	Small nucle	Cre10.g455	1	1	1	13.763	127
Cre10.g455700.t1.2	Non-canon	Cre10.g455	1	1	1	131.22	1359
Cre10.g456000.t1.2	Flagellar As	Cre10.g456	2	1	1	28.203	279
Cre10.g456050.t2.1	(1 of 4) K03	Cre10.g456	9	9	5	21.414	201
Cre10.g456100.t1.2	Flagellar fla	Cre10.g456	7	4	4	21.386	201
Cre10.g456200.t1.2	Ribosomal	Cre10.g456	6	6	6	15.122	131
Cre10.g456700.t1.2	(1 of 1) PF0	Cre10.g456	4	4	4	73.668	720
Cre10.g456750.t1.2	(1 of 1) 1.8.	Cre10.g456	4	4	4	24.896	226
Cre10.g456900.t1.2	(1 of 1) PTH	Cre10.g456	1	1	1	79.563	724
Cre10.g457700.t1.2	(1 of 1) K08	Cre10.g457	3	3	3	39.885	370
Cre10.g458450.t1.1	Glutathion	Cre10.g458	8	8	8	18.015	162
Cre10.g458500.t1.2	Aspartate k	Cre10.g458	7	7	7	61.055	569
Cre10.g458550.t1.2	(1 of 1) PTH	Cre10.g458	4	4	4	16.946	157
Cre10.g458850.t1.2	NA	Cre10.g458	1	1	1	47.453	441
Cre10.g459200.t1.2	P-type ATP	Cre10.g459	7	7	7	117.28	1081
Cre10.g459250.t1.2	Ribosomal	Cre10.g459	6	6	6	12.058	108
Cre10.g459500.t1.1	Nucleolar C	Cre10.g459	1	1	1	76.832	691
Cre10.g459750.t1.2	NADH:ubiq	Cre10.g459	2	2	2	7.6428	65
Cre10.g460050.t2.1	(1 of 1) PTH	Cre10.g460	1	1	1	40.21	373
Cre10.g461050.t1.2	Vacuolar A	Cre10.g461	27	27	27	68.394	616
Cre10.g461150.t1.2	(1 of 543) 2	Cre10.g461	2	2	2	45.116	415
Cre10.g461250.t1.1	(1 of 1) K06	Cre10.g461	4	4	4	78.514	719
Cre10.g461350.t1.1	Basal body	Cre10.g461	2	2	2	46.362	411
Cre10.g461900.t1.2	(1 of 2) PTH	Cre10.g461	4	4	4	44.019	398
Cre10.g461950.t1.2	20S protea	Cre10.g461	2	2	2	29.577	273
Cre10.g462250.t1.2	RNA Export	Cre10.g462	4	4	4	35.682	337
Cre10.g462950.t1.2	Plastid ribo	Cre10.g462	6	6	6	11.411	101
Cre10.g463370.t1.2	(1 of 15) 2.	Cre10.g463	4	4	4	39.287	380
Cre10.g464650.t1.2	Transmeml	Cre10.g464	2	2	2	27.241	251
Cre10.g465550.t1.1	ClpD chape	Cre10.g465	1	1	1	110.5	1033
Cre10.g466300.t1.2	(1 of 1) PTH	Cre10.g466	1	1	1	60.839	636
Cre10.g466450.t1.1	(1 of 16) KC	Cre10.g466	1	1	1	78.776	776
Cre10.g466500.t1.2	(1 of 1) K08	Cre10.g466	4	4	4	21.63	197
Cre10.g466650.t1.2	Flagellar As	Cre10.g466	6	6	6	39.463	352
Cre10.g467000.t1.2	Intraflagell	Cre10.g467	2	2	2	51.308	469
Cre11.g467350.t1.2	(1 of 2) PTH	Cre11.g467	3	3	3	73.218	683
Cre11.g467400.t1.2	NA	Cre11.g467	6	6	6	57	602

Cre11.g467524.t1.1	(1 of 1) 3.6.	Cre11.g467	2	2	2	28.574	264
Cre11.g467531.t1.1	Flagellar As	Cre11.g467	10	10	10	44.182	421
Cre11.g467535.t1.1	Mitochond	Cre11.g467	3	3	3	43.976	416
Cre11.g467544.t1.1	Isopenteny	Cre11.g467	1	1	1	27.739	253
Cre11.g467546.t1.1	(1 of 2) 3.1.	Cre11.g467	1	1	1	150.94	1607
Cre11.g467547.t1.1	Glutamyl/g	Cre11.g467	8	8	8	82.966	763
Cre11.g467550.t1.2	(1 of 1) 3.5.	Cre11.g467	8	8	8	41.58	390
Cre11.g467556.t1.1	NA	Cre11.g467	1	1	1	145.42	1472
Cre11.g467568.t1.1	(1 of 1) K0(	Cre11.g467	1	1	1	45.806	425
Cre11.g467569.t1.1	Chloroplast	Cre11.g467	18	18	18	23.995	219
Cre11.g467573.t1.1	Chlorophyll	Cre11.g467	2	2	2	28.886	267
Cre11.g467578.t1.1	(1 of 1) K02	Cre11.g467	12	12	12	13.503	126
Cre11.g467595.t1.1	(1 of 18) PT	Cre11.g467	1	1	1	22.982	213
Cre11.g467596.t1.1	NA	Cre11.g467	1	1	1	60.66	591
Cre11.g467612.t1.1	Ubiquinone	Cre11.g467	6	6	6	44.817	418
Cre11.g467617.t1.1	Gamma hy	Cre11.g467	3	3	3	30.233	293
Cre11.g467662.t1.1	NA	Cre11.g467	1	1	1	51.709	535
Cre11.g467668.t1.1	NADH:ubiq	Cre11.g467	6	6	6	13.926	117
Cre11.g467689.t1.1	Rieske iron	Cre11.g467	10	10	10	21.525	206
Cre11.g467700.t1.1	Uroporphy	Cre11.g467	9	9	9	42.77	390
Cre11.g467707.t1.1	Mitochond	Cre11.g467	4	4	4	21.172	202
Cre12.g507558.t1.1	(1 of 2) 3.5.	Cre12.g507	2	2	2	35.07	330
Cre11.g467723.t2.1	3-ketoacyl-	Cre11.g467	19	19	19	48.543	454
Cre11.g467755.t1.1	(1 of 3) PTH	Cre11.g467	4	4	4	31.667	310
Cre11.g467767.t1.1	NADH:ubiq	Cre11.g467	2	2	2	18.012	156
Cre11.g467769.t1.1	NA	Cre11.g467	3	3	3	18.31	169
Cre11.g467770.t1.1	Phosphogly	Cre11.g467	51	51	51	49.031	462
Cre11.g467772.t1.1	D-type cycl	Cre11.g467	1	1	1	52.462	517
Cre11.g467773.t1.1	NA	Cre11.g467	1	1	1	20.336	197
Cre11.g467776.t1.1	NA	Cre11.g467	1	1	1	39.745	378
Cre11.g467778.t1.1	(1 of 1) K0(	Cre11.g467	6	6	6	28.733	264
Cre11.g467781.t1.1	ABC transp	Cre11.g467	3	3	3	67.895	605
Cre11.g468300.t1.2	Sar-type sn	Cre11.g468	3	3	3	21.864	192
Cre11.g468450.t1.2	Centrin pre	Cre11.g468	2	2	2	19.459	169
Cre11.g468550.t1.2	Vacuolar A	Cre11.g468	9	9	9	11.784	110
Cre11.g468750.t1.2	Predicted p	Cre11.g468	8	8	8	24.806	225
Cre11.g468800.t1.2	(1 of 543) 2	Cre11.g468	1	1	1	47.702	469
Cre11.g468950.t1.2	Ubiquinol:c	Cre11.g468	1	1	1	7.0321	60
Cre11.g469600.t1.2	(1 of 3) PTH	Cre11.g469	3	3	3	93.851	883
Cre11.g474800.t1.2	Ornithine t	Cre11.g474	3	3	3	48.286	446
Cre11.g475850.t1.2	DnaJ-like Zi	Cre11.g475	4	4	4	21.108	196
Cre11.g476050.t1.2	Flagellar ou	Cre11.g476	3	3	3	339.35	3000
Cre11.g476200.t1.2	(1 of 3) PTH	Cre11.g476	3	3	3	82.258	831
Cre11.g476325.t1.1	(1 of 3) 4.1.	Cre11.g476	1	1	1	102.32	915
Cre16.g673850.t1.1	NA	Cre16.g673	2	2	2	40.359	367
Cre11.g476550.t1.2	(1 of 4) 1.3.	Cre11.g476	13	13	13	36.587	347
Cre11.g476650.t1.1	Pullulanase	Cre11.g476	4	4	4	119.89	1120
Cre11.g476750.t1.2	Ferredoxin	Cre11.g476	37	37	37	38.266	346
Cre11.g476850.t1.2	Componen	Cre11.g476	1	1	1	55.107	471
Cre11.g477100.t1.2	Flagellar As	Cre11.g477	3	3	3	58.671	574

Cre11.g477300.t1.1	(1 of 1) K03	Cre11.g477	12	12	12	64.729	585
Cre11.g477625.t1.1	(1 of 1) PTH	Cre11.g477	4	4	4	190.24	1823
Cre11.g477850.t1.1	Transcriptio	Cre11.g477	8	8	8	111.27	1060
Cre11.g477950.t1.1	(1 of 4) PTH	Cre11.g477	27	27	27	94.345	1011
Cre11.g478100.t1.2	(1 of 8) PF1	Cre11.g478	6	6	6	16.675	160
Cre11.g478156.t2.1	(1 of 1) K12	Cre11.g478	2	2	2	91.223	859
Cre11.g478240.t1.1	(1 of 1) K12	Cre11.g478	1	1	1	43.793	404
Cre11.g478700.t1.2	Peptidyl-pr	Cre11.g478	6	6	6	13.95	130
Cre11.g478800.t1.2	NA	Cre11.g478	19	19	19	74.606	678
Cre11.g478850.t1.2	(1 of 16) PF	Cre11.g478	1	1	1	23.869	222
Cre11.g479050.t1.2	Peptidyl-pr	Cre11.g479	2	2	2	15.497	143
Cre11.g479250.t1.2	(1 of 1) K14	Cre11.g479	8	8	8	54.4	533
Cre11.g479500.t1.2	Plastid ribo	Cre11.g479	12	12	12	25.623	243
Cre11.g479750.t1.2	(1 of 1) PTH	Cre11.g479	3	3	3	59.596	549
Cre11.g480150.t1.2	Ribosomal	Cre11.g480	9	9	9	16.302	153
Cre11.g480200.t1.1	NA	Cre11.g480	1	1	1	169.59	1699
Cre11.g481000.t1.2	(1 of 6) K14	Cre11.g481	3	3	3	41.107	365
Cre11.g481126.t1.1	(1 of 1) PTH	Cre11.g481	6	6	6	26.703	249
Cre11.g481250.t2.1	(1 of 1) PTH	Cre11.g481	1	1	1	39.623	381
Cre11.g481450.t1.2	CF0 ATP sy	Cre11.g481	14	14	14	22.479	209
Cre11.g481500.t1.2	Imidazole g	Cre11.g481	11	11	11	50.194	483
Cre11.g482001.t1.1	(1 of 1) K13	Cre11.g482	3	3	3	113.82	1101
Cre11.g482600.t1.1	NA	Cre11.g482	4	4	4	10.042	93
Cre11.g482850.t1.1	(1 of 1) K16	Cre11.g482	1	1	1	72.023	666
Cre12.g483600.t1.2	(1 of 1) PTH	Cre12.g483	1	1	1	85.99	837
Cre12.g483650.t1.2	(1 of 3) PTH	Cre12.g483	1	1	1	50.448	458
Cre12.g483700.t2.1	Chloroplast	Cre12.g483	35	35	35	44.035	382
Cre12.g483950.t1.2	NAD-deper	Cre12.g483	25	25	25	35.138	341
Cre12.g484000.t1.2	(1 of 1) K01	Cre12.g484	9	9	9	49.201	455
Cre12.g484050.t1.2	Ribosomal	Cre12.g484	9	9	9	11.126	98
Cre12.g484100.t1.2	DNA-direct	Cre12.g484	1	1	1	11.261	101
Cre12.g484150.t2.1	(1 of 1) K15	Cre12.g484	3	3	3	78.566	747
Cre12.g484200.t1.2	Geranylger	Cre12.g484	6	6	6	37.373	345
Cre12.g484250.t1.1	Flagellar in	Cre12.g484	1	1	1	522.88	4626
Cre12.g484500.t1.2	(1 of 1) PTH	Cre12.g484	1	1	1	18.782	183
Cre12.g484700.t1.2	NA	Cre12.g484	6	6	6	13.767	118
Cre12.g485550.t1.2	(1 of 1) 4.1	Cre12.g485	2	2	2	36.947	362
Cre12.g485800.t1.2	FtsH-like m	Cre12.g485	20	19	19	77.546	727
Cre12.g486100.t1.2	Active subu	Cre12.g486	4	4	4	27.673	256
Cre12.g486300.t1.2	Photosyste	Cre12.g486	4	4	4	20.284	196
Cre12.g487700.t1.2	(1 of 543) 2	Cre12.g487	3	3	3	76.947	741
Cre12.g488100.t1.2	UPF3 regul	Cre12.g488	1	1	1	60.066	612
Cre12.g488850.t2.1	Alpha2-Ada	Cre12.g488	5	5	5	122.55	1161
Cre12.g489150.t1.2	SH2-domai	Cre12.g489	1	1	1	97.973	919
Cre12.g489153.t1.1	(1 of 1) K02	Cre12.g489	3	3	3	18.64	163
Cre12.g489300.t1.1	(1 of 1) KO(	Cre12.g489	5	5	5	112.8	1063
Cre12.g489700.t1.2	Ornithine c	Cre12.g489	6	6	6	40.386	364
Cre12.g489750.t1.2	Flagellar As	Cre12.g489	6	6	6	68.474	633
Cre12.g490000.t1.2	Eukaryotic	Cre12.g490	6	6	6	37.309	333
Cre12.g490350.t1.1	1-hydroxy-2	Cre12.g490	30	30	30	74.517	681

Cre12.g490500.t1.2	Predicted p	Cre12.g490	5	5	5	23.286	207
Cre12.g490850.t1.1	(1 of 1) PTH	Cre12.g490	2	2	2	113.57	1106
Cre12.g491500.t1.2	Ubiquitin-a	Cre12.g491	2	2	2	47.657	434
Cre12.g491952.t1.1	(1 of 9) PTH	Cre12.g491	2	2	2	280.84	2674
Cre12.g492300.t1.2	NADH:ubiq	Cre12.g492	5	5	5	18.122	164
Cre12.g492350.t1.2	(1 of 2) PTH	Cre12.g492	5	5	5	69.951	678
Cre12.g492650.t1.2	Fasciclin-lik	Cre12.g492	1	1	1	66.362	660
Cre12.g493150.t1.2	Vitamin K e	Cre12.g493	3	3	3	35.472	346
Cre12.g493250.t1.2	(1 of 2) PTH	Cre12.g493	5	5	5	81.026	720
Cre12.g493950.t1.2	Plastid ribo	Cre12.g493	8	8	8	18.524	164
Cre12.g494050.t1.2	Ribosomal	Cre12.g494	16	16	16	21.518	191
Cre12.g494100.t1.1	(1 of 1) K12	Cre12.g494	2	2	2	143.79	1321
Cre12.g494400.t1.2	ATP-bindin	Cre12.g494	2	2	2	40.646	404
Cre12.g494450.t1.2	Plastid ribo	Cre12.g494	7	7	7	14.448	128
Cre12.g494550.t2.1	RNA bindin	Cre12.g494	1	1	1	65.628	630
Cre12.g494750.t1.2	Plastid ribo	Cre12.g494	6	6	6	18.248	166
Cre12.g494800.t1.1	Flagellar in	Cre12.g494	3	3	3	21.738	193
Cre12.g494850.t1.2	Adenylate l	Cre12.g494	18	18	18	29.08	264
Cre12.g495250.t1.1	Similar to F	Cre12.g495	6	6	6	71.357	730
Cre12.g495300.t1.2	Phosphorib	Cre12.g495	1	1	1	32.896	305
Cre12.g495650.t1.2	(1 of 2) PTH	Cre12.g495	5	5	5	72.739	700
Cre12.g495850.t1.2	(1 of 1) PTH	Cre12.g495	11	11	11	27.825	266
Cre12.g495951.t2.1	(1 of 5) K03	Cre12.g495	8	8	8	21.169	200
Cre12.g496700.t1.2	(1 of 2) KO(	Cre12.g496	7	7	7	20.353	186
Cre12.g496750.t1.2	NADH:ubiq	Cre12.g496	8	8	8	26.497	231
Cre12.g497300.t2.1	Rhodanese	Cre12.g497	17	17	17	38.936	378
Cre12.g497350.t1.1	NA	Cre12.g497	6	6	6	189.72	1801
Cre12.g497750.t1.2	Trehalose 6	Cre12.g497	1	1	1	42.212	388
Cre12.g497850.t1.2	NA	Cre12.g497	1	1	1	23.404	216
Cre12.g498050.t1.2	Subunit of	Cre12.g498	2	2	2	78.779	729
Cre12.g498100.t1.2	Eukaryotic	Cre12.g498	2	2	2	49.358	428
Cre12.g498250.t1.2	Ribosomal	Cre12.g498	8	8	8	15.9	139
Cre12.g498500.t1.2	DegP-type	Cre12.g498	28	28	28	47.653	462
Cre12.g498550.t1.1	Magnesium	Cre12.g498	6	6	6	34.993	326
Cre12.g498900.t1.2	Ribosomal	Cre12.g498	20	20	20	22.114	194
Cre12.g498950.t1.2	NA	Cre12.g498	7	7	7	25.903	240
Cre12.g499500.t1.1	Sulfur accli	Cre12.g499	3	3	3	40.78	357
Cre12.g499800.t1.2	NA	Cre12.g499	4	4	4	10.479	95
Cre12.g500150.t1.1	(1 of 1) K0(	Cre12.g500	19	19	19	57.928	534
Cre12.g500500.t2.1	Sterol-C24-	Cre12.g500	1	1	1	42.104	387
Cre12.g500550.t1.2	(1 of 2) PTH	Cre12.g500	1	1	1	85.91	838
Cre12.g500950.t1.2	Active subu	Cre12.g500	10	10	10	38.407	345
Cre12.g501050.t1.2	Aldehyde/k	Cre12.g501	3	3	3	62.352	574
Cre12.g501200.t1.2	E3 ubiquitii	Cre12.g501	5	5	5	17.92	157
Cre12.g501550.t1.2	NA	Cre12.g501	1	1	1	11.827	113
Cre12.g502200.t1.2	(1 of 1) K03	Cre12.g502	3	3	3	89.987	828
Cre12.g502750.t1.2	Prefoldin al	Cre12.g502	3	3	3	14.157	125
Cre12.g503300.t1.2	(1 of 1) 4.1.	Cre12.g503	7	7	7	68.043	651
Cre12.g503350.t1.2	NA	Cre12.g503	2	2	2	25.382	239
Cre12.g503450.t1.2	(1 of 29) PT	Cre12.g503	2	2	2	40.296	359

Cre12.g503550.t1.2	2-C-methyl	Cre12.g503	8	8	8	22.253	207
Cre12.g503650.t1.2	(1 of 1) PTH	Cre12.g503	1	1	1	33.448	308
Cre12.g504200.t1.2	Ribosomal	Cre12.g504	7	7	7	15.676	142
Cre12.g505650.t1.2	NA	Cre12.g505	1	1	1	70.828	694
Cre12.g505850.t1.2	Chaperonir	Cre12.g505	13	13	13	25.75	238
Cre12.g506000.t1.2	Flagellar ou	Cre12.g506	2	2	2	63.534	567
Cre12.g507150.t1.2	NA	Cre12.g507	7	7	7	32.159	306
Cre12.g507300.t1.2	Low-CO2-ir	Cre12.g507	1	1	1	29.837	260
Cre12.g507400.t1.2	(1 of 2) PTH	Cre12.g507	3	3	3	76.574	700
Cre12.g507650.t2.1	Chloroplast	Cre12.g507	9	9	9	44.991	418
Cre12.g507750.t3.1	(1 of 1) PF0	Cre12.g507	1	1	1	60.411	546
Cre12.g508000.t1.1	Translocon	Cre12.g508	3	3	3	42.955	412
Cre12.g508050.t1.2	(1 of 1) PF0	Cre12.g508	1	1	1	183.17	1663
Cre12.g508150.t1.2	(1 of 1) PTH	Cre12.g508	1	1	1	124.37	1086
Cre12.g508250.t1.1	(1 of 1) PTH	Cre12.g508	1	1	1	272.93	2580
Cre12.g508500.t1.2	(1 of 2) 3.4	Cre12.g508	3	3	3	57.265	537
Cre12.g508750.t1.2	Light-harve	Cre12.g508	4	4	4	26.922	246
Cre12.g508900.t1.2	Mitogen-A(	Cre12.g508	6	6	6	42.529	375
Cre12.g509050.t1.1	OEE2-like p	Cre12.g509	9	9	9	23.572	218
Cre12.g509650.t1.2	Phytoene d	Cre12.g509	13	13	13	62.837	564
Cre12.g509750.t1.2	Mitochond	Cre12.g509	23	23	23	49.589	485
Cre12.g510050.t1.2	Copper tar	Cre12.g510	1	1	1	47.178	404
Cre12.g510350.t1.1	(1 of 1) KO(	Cre12.g510	1	1	1	667.44	6411
Cre12.g510400.t1.1	Putative ru	Cre12.g510	5	5	5	24.226	232
Cre12.g510450.t1.2	Ribosomal	Cre12.g510	7	7	7	6.3924	55
Cre12.g510550.t1.2	(1 of 2) PTH	Cre12.g510	1	1	1	92.151	897
Cre12.g510650.t1.2	Fructose-1,	Cre12.g510	23	23	23	44.444	415
Cre12.g510800.t1.2	Magnesium	Cre12.g510	8	8	8	46.416	425
Cre12.g510900.t1.2	ATP-depen	Cre12.g510	1	1	1	66.455	620
Cre12.g510950.t1.2	NA	Cre12.g510	1	1	1	118.2	1179
Cre12.g511000.t1.1	NA	Cre12.g511	1	1	1	24.477	233
Cre12.g511050.t1.2	Radial spok	Cre12.g511	3	3	3	38.993	346
Cre12.g511200.t1.2	NADH:ubiq	Cre12.g511	6	6	6	9.5478	81
Cre12.g511850.t1.2	Glycogen S	Cre12.g511	5	5	5	54.839	492
Cre12.g511900.t1.2	Ribulose pl	Cre12.g511	14	14	14	28.401	265
Cre12.g512000.t1.1	(1 of 4) K0(	Cre12.g512	5	5	5	120.2	1094
Cre12.g512600.t1.2	Ribosomal	Cre12.g512	6	6	6	20.93	187
Cre12.g513150.t1.2	Mia40, mit	Cre12.g513	7	7	7	53.886	484
Cre12.g513200.t1.2	Enolase	Cre12.g513	45	45	45	51.602	477
Cre12.g513600.t1.2	(1 of 1) K12	Cre12.g513	1	1	1	42.827	396
Cre12.g513750.t1.1	Glutaredox	Cre12.g513	8	8	8	11.409	106
Cre12.g513950.t1.2	Iron-sulfur	Cre12.g513	7	7	7	50.82	482
Cre12.g514050.t1.2	Ferredoxin	Cre12.g514	63	63	63	174.98	1629
Cre12.g514200.t1.2	(1 of 1) PTH	Cre12.g514	18	18	18	64.459	611
Cre12.g514500.t1.2	Ribosomal	Cre12.g514	12	12	12	17.781	156
Cre12.g514750.t1.2	Citrate synt	Cre12.g514	9	9	9	51.293	469
Cre12.g514850.t1.2	Heat shock	Cre12.g514	16	15	15	89.353	810
Cre12.g514950.t1.1	DNA helica	Cre12.g514	1	1	1	177.13	1714
Cre12.g515650.t1.2	Eukaryotic	Cre12.g515	6	6	6	24.249	219
Cre12.g515700.t1.2	NA	Cre12.g515	1	1	1	62.379	585

Cre12.g515850.t1.2	Proliferatin	Cre12.g515	1	1	1	29.721	268
Cre12.g515950.t1.2	NA	Cre12.g515	1	1	1	113.16	1107
Cre12.g516200.t1.2	Elongation	Cre12.g516	56	56	55	94.208	845
Cre12.g516450.t1.2	Gamma ca	Cre12.g516	2	2	2	24.292	229
Cre12.g517100.t1.1	(1 of 2) 5.5.	Cre12.g517	9	9	9	28.489	261
Cre12.g517150.t1.1	Adenylylph	Cre12.g517	31	31	31	46.385	413
Cre12.g517900.t1.1	Chloroplast	Cre12.g517	8	8	8	113.73	1029
Cre12.g518300.t1.2	(1 of 1) K12	Cre12.g518	1	1	1	15.409	134
Cre12.g518550.t1.1	Flagellar As	Cre12.g518	1	1	1	332.31	3225
Cre12.g518900.t1.2	(1 of 4) 1.1.	Cre12.g518	3	3	3	40.832	379
Cre12.g519000.t1.1	Phosphorib	Cre12.g519	4	4	4	27.362	265
Cre12.g519100.t1.2	(1 of 1) K01	Cre12.g519	10	10	10	54.099	498
Cre12.g519180.t2.1	(1 of 1) K02	Cre12.g519	34	34	34	108.77	1013
Cre12.g519300.t1.2	Predicted p	Cre12.g519	1	1	1	27.45	258
Cre12.g519350.t1.2	Prohibitin	Cre12.g519	8	8	8	31.253	282
Cre12.g519900.t1.2	(1 of 1) 6.3.	Cre12.g519	4	4	4	86.336	803
Cre12.g520000.t1.1	(1 of 2) PF0	Cre12.g520	1	1	1	158.34	1603
Cre12.g520200.t1.1	Pyridoxami	Cre12.g520	3	3	3	40.25	370
Cre12.g520350.t1.2	Aldehyde d	Cre12.g520	1	1	1	59.25	548
Cre12.g520500.t1.1	Acidic ribos	Cre12.g520	22	22	22	34.575	320
Cre12.g520550.t1.2	Importin be	Cre12.g520	1	1	1	102.59	959
Cre12.g520600.t1.2	Plastid ribo	Cre12.g520	2	2	2	19.071	171
Cre12.g520650.t1.2	Tubby-like	Cre12.g520	2	2	2	48.613	451
Cre12.g521450.t1.1	Catalytic su	Cre12.g521	1	1	1	20.081	185
Cre12.g521750.t1.2	(1 of 2) PF0	Cre12.g521	1	1	1	134.63	1362
Cre12.g522000.t2.1	NA	Cre12.g522	3	3	3	170.99	1655
Cre12.g522050.t1.2	(1 of 1) PTH	Cre12.g522	1	1	1	73.319	722
Cre12.g522100.t1.1	(1 of 10) PT	Cre12.g522	1	1	1	36.684	350
Cre12.g522350.t1.2	(1 of 2) 6.1.	Cre12.g522	6	6	6	45.19	403
Cre12.g522450.t1.2	COP-II coat	Cre12.g522	1	1	1	138.18	1313
Cre12.g522600.t1.2	mitochondi	Cre12.g522	7	7	7	11.958	112
Cre12.g523200.t1.1	Nucleosom	Cre12.g523	2	2	2	46.852	418
Cre12.g523850.t1.2	Ubiquinol:c	Cre12.g523	23	23	23	55.054	495
Cre12.g524400.t1.2	(1 of 1) PTH	Cre12.g524	4	4	4	38.727	391
Cre12.g525150.t1.2	NA	Cre12.g525	4	4	4	69.263	670
Cre12.g525200.t1.2	Nucleolar p	Cre12.g525	13	13	13	56.267	503
Cre12.g526750.t1.2	RNA bindin	Cre12.g526	1	1	1	16.592	144
Cre12.g526800.t1.2	6-phospho	Cre12.g526	13	13	13	61.024	566
Cre12.g526850.t1.2	(1 of 1) K14	Cre12.g526	1	1	1	75.147	713
Cre12.g527000.t1.2	(1 of 1) PF0	Cre12.g527	2	2	2	92.121	870
Cre12.g527550.t1.2	NA	Cre12.g527	2	2	2	13.408	124
Cre12.g527850.t1.1	Translin-lik	Cre12.g527	2	2	2	31.569	291
Cre12.g528000.t1.2	(1 of 3) PTH	Cre12.g528	22	22	22	44.199	409
Cre12.g528700.t1.2	Tryptophar	Cre12.g528	10	10	10	30.996	296
Cre12.g528750.t1.2	Ribosomal	Cre12.g528	9	9	9	17.604	166
Cre12.g528850.t1.1	Flagellar ou	Cre12.g528	1	1	1	17.365	156
Cre12.g528950.t1.1	Puf protein	Cre12.g528	1	1	1	84.369	796
Cre12.g529400.t1.2	Ribosomal	Cre12.g529	5	5	5	9.5149	86
Cre12.g529600.t1.2	DNA-direct	Cre12.g529	1	1	1	203.86	1909
Cre12.g529651.t1.1	(1 of 1) K02	Cre12.g529	12	12	12	21.635	193

Cre12.g529800.t2.1	(1 of 3) KO(	Cre12.g529	1	1	1	47.408	482
Cre12.g529950.t1.2	Eukaryotic	Cre12.g529	11	11	11	70.395	644
Cre12.g530300.t1.2	Peptidyl-pr	Cre12.g530	9	9	9	21.771	208
Cre12.g530650.t2.1	Glutamine	Cre12.g530	18	18	18	41.342	380
Cre12.g530850.t3.1	NA	Cre12.g530	3	3	3	140.68	1381
Cre12.g531100.t2.1	20S protea	Cre12.g531	2	2	2	25.471	241
Cre12.g531550.t1.2	Eukaryotic	Cre12.g531	8	8	8	30.66	276
Cre12.g531900.t1.2	(1 of 2) 1.5	Cre12.g531	6	6	6	76.406	722
Cre12.g532100.t1.2	NA	Cre12.g532	5	5	5	51.925	477
Cre12.g532550.t1.1	Ribosomal	Cre12.g532	12	12	12	19.422	173
Cre12.g533000.t1.2	CPD photol	Cre12.g533	2	2	2	64.831	612
Cre12.g533050.t1.2	(1 of 1) K14	Cre12.g533	4	4	4	72.922	676
Cre12.g533100.t1.1	(1 of 2) PF0	Cre12.g533	2	2	2	20.531	196
Cre12.g533351.t1.1	(1 of 3) K03	Cre12.g533	2	2	2	108.89	1053
Cre12.g533550.t1.1	Pyruvate ki	Cre12.g533	20	20	18	54.64	508
Cre12.g533800.t1.2	Peptidyl-pr	Cre12.g533	3	3	3	20.959	187
Cre12.g534250.t1.2	NA	Cre12.g534	3	3	3	23.75	213
Cre12.g534350.t1.2	(1 of 1) 1.1	Cre12.g534	4	4	4	34.797	320
Cre12.g534450.t1.1	(1 of 1) PTH	Cre12.g534	8	8	8	15.559	146
Cre12.g534700.t1.2	Peptidyl-pr	Cre12.g534	10	10	10	23.462	215
Cre12.g534800.t1.1	Glycine cle	Cre12.g534	21	21	21	111.35	1039
Cre12.g535851.t1.1	(1 of 1) K02	Cre12.g535	15	15	15	31.056	287
Cre12.g535950.t1.2	NADH:ubiq	Cre12.g535	14	14	14	78.358	733
Cre12.g536550.t1.2	Flagellar ou	Cre12.g536	3	3	3	76.304	682
Cre12.g537000.t1.2	(1 of 1) PF0	Cre12.g537	5	5	5	20.036	185
Cre12.g537050.t1.2	NA	Cre12.g537	1	1	1	7.3266	67
Cre12.g537100.t1.2	(1 of 2) 6.1	Cre12.g537	22	22	22	141.51	1299
Cre12.g537200.t1.2	2-oxoglutar	Cre12.g537	3	3	3	117.32	1042
Cre12.g537250.t1.2	NA	Cre12.g537	2	2	2	97.003	899
Cre12.g537450.t1.2	Cytochrom	Cre12.g537	5	5	5	13.967	125
Cre12.g537550.t1.1	(1 of 7) 2.4	Cre12.g537	1	1	1	36.81	338
Cre12.g537581.t1.1	(1 of 1) 2.1	Cre12.g537	6	6	6	55.703	523
Cre12.g537800.t1.2	Ribosomal	Cre12.g537	18	18	18	27.575	239
Cre12.g538100.t1.2	(1 of 3) K07	Cre12.g538	3	3	3	38.956	348
Cre12.g538400.t1.2	DNA-direct	Cre12.g538	1	1	1	22.528	201
Cre12.g538500.t1.1	(1 of 1) K14	Cre12.g538	3	3	3	73.976	724
Cre12.g538700.t1.2	(1 of 2) PTH	Cre12.g538	1	1	1	93.487	902
Cre12.g539900.t1.1	(1 of 1) K0(	Cre12.g539	2	2	2	59.219	572
Cre12.g540076.t1.1	(1 of 1) PTH	Cre12.g540	1	1	1	117.78	1085
Cre12.g540450.t1.2	NA	Cre12.g540	1	1	1	37.357	365
Cre12.g541550.t1.2	NA	Cre12.g541	1	1	1	30.798	301
Cre12.g541600.t1.2	NA	Cre12.g541	4	4	4	26.962	255
Cre12.g549550.t1.2	Beta tubuli	Cre12.g549	36	36	36	49.618	443
Cre12.g542300.t1.2	Glycerate k	Cre12.g542	3	3	3	45.195	429
Cre12.g542350.t1.2	(1 of 2) PTH	Cre12.g542	11	11	11	17.947	160
Cre12.g542550.t1.1	(1 of 12) 2.:	Cre12.g542	1	1	1	63.717	640
Cre12.g542850.t1.2	Aci-reducto	Cre12.g542	1	1	1	23.738	205
Cre12.g543350.t3.1	Formaldeh	Cre12.g543	10	10	2	40.309	375
Cre12.g543400.t1.2	Formaldeh	Cre12.g543	9	1	1	40.409	378
Cre12.g544000.t1.2	Radial spok	Cre12.g544	2	2	2	55.355	521

Cre12.g544150.t1.2	Peptidyl-pr	Cre12.g544	7	7	7	25.552	243
Cre12.g544400.t1.2	(1 of 1) K08	Cre12.g544	2	2	2	89.247	919
Cre12.g544752.t1.1	(1 of 19) PT	Cre12.g544	1	1	1	38.023	355
Cre12.g545177.t1.1	(1 of 2) K02	Cre12.g545	1	1	1	29.879	278
Cre12.g545550.t2.1	NA	Cre12.g545	2	2	2	39.953	395
Cre12.g546050.t1.2	1-deoxy-D-	Cre12.g546	11	11	11	49.509	455
Cre12.g546400.t1.2	Flagellar in	Cre12.g546	1	1	1	11.119	100
Cre12.g546550.t1.1	Fe-assimila	Cre12.g546	12	12	12	37.941	362
Cre12.g546650.t1.2	(1 of 1) K10	Cre12.g546	3	3	3	18.837	167
Cre12.g546700.t2.1	(1 of 90) PF	Cre12.g546	4	4	4	101.95	965
Cre12.g547250.t1.2	NA	Cre12.g547	1	1	1	80.927	848
Cre12.g547800.t1.1	(1 of 7) PTH	Cre12.g547	1	1	1	33.263	305
Cre12.g548000.t1.2	(1 of 1) K14	Cre12.g548	1	1	1	255.54	2536
Cre12.g548350.t1.2	NA	Cre12.g548	1	1	1	40.073	400
Cre12.g548950.t1.2	Chlorophyll	Cre12.g548	10	8	8	26.686	249
Cre12.g549100.t4.1	(1 of 2) PTH	Cre12.g549	1	1	1	32.49	300
Cre12.g549300.t1.2	Aquaporin,	Cre12.g549	2	2	2	31.534	300
Cre12.g549350.t1.2	NA	Cre12.g549	2	2	2	29.518	287
Cre12.g549750.t1.2	Casein kina	Cre12.g549	4	4	4	38.432	333
Cre12.g549852.t1.1	(1 of 2) KO	Cre12.g549	2	2	2	27.434	263
Cre12.g550400.t1.2	Glutaredox	Cre12.g550	3	3	3	11.329	107
Cre12.g550500.t1.2	NA	Cre12.g550	1	1	1	18.122	158
Cre12.g550700.t1.2	(1 of 1) 2.1.	Cre12.g550	3	3	3	31.535	299
Cre12.g550702.t1.1	Predicted p	Cre12.g550	2	2	2	16.01	150
Cre12.g550850.t1.2	Oxygen-ev	Cre12.g550	26	26	26	25.899	245
Cre12.g551552.t1.1	(1 of 70) PF	Cre12.g551	3	3	3	74.199	713
Cre12.g551800.t1.2	(1 of 25) PF	Cre12.g551	4	4	4	31.666	304
Cre12.g551900.t1.2	(1 of 1) KO	Cre12.g551	4	4	4	15.85	140
Cre12.g551950.t1.2	Predicted p	Cre12.g551	2	2	2	18.053	167
Cre12.g552200.t1.2	Starch pho	Cre12.g552	13	12	12	114.09	1010
Cre12.g552850.t1.1	Predicted p	Cre12.g552	4	4	4	54.2	521
Cre12.g553050.t1.2	(1 of 1) K14	Cre12.g553	1	1	1	28.708	268
Cre12.g553100.t2.1	(1 of 1) PTH	Cre12.g553	2	2	2	145.31	1502
Cre12.g553250.t1.2	Phosphofru	Cre12.g553	2	1	1	54.773	512
Cre12.g553450.t1.1	Cyclic-nucl	Cre12.g553	1	1	1	255.25	2560
Cre12.g553678.t1.1	NA	Cre12.g553	2	2	2	12.129	117
Cre12.g553700.t1.2	(1 of 3) PTH	Cre12.g553	2	2	2	24.023	215
Cre12.g553900.t1.1	Cyclic-nucl	Cre12.g553	1	1	1	200.88	1977
Cre12.g554800.t1.2	Phosphorib	Cre12.g554	26	26	26	41.892	375
Cre12.g554850.t1.2	Thioredoxi	Cre12.g554	1	1	1	16.145	152
Cre12.g554953.t1.1	Electron tra	Cre12.g554	3	3	3	28.686	277
Cre12.g555150.t1.2	NADH:ubiq	Cre12.g555	4	4	4	17.875	155
Cre12.g555250.t1.2	NADH:ubiq	Cre12.g555	5	5	5	16.105	138
Cre12.g555450.t1.2	(1 of 1) 2.7.	Cre12.g555	5	5	5	31.471	289
Cre12.g555951.t1.1	(1 of 2) 3.5.	Cre12.g555	2	2	2	13.519	127
Cre12.g556050.t1.2	Plastid ribo	Cre12.g556	12	12	12	22.006	200
Cre12.g556600.t1.2	Glyceraldel	Cre12.g556	13	13	13	53.064	498
Cre12.g556750.t1.1	Short-chair	Cre12.g556	1	1	1	49.214	473
Cre12.g557600.t1.1	Adenylate l	Cre12.g557	12	12	12	26.003	240
Cre12.g557800.t1.2	(1 of 1) K06	Cre12.g557	1	1	1	13.817	125

Cre12.g558100.t1.2	Protein-/Hi	Cre12.g558	3	3	3	42.454	378
Cre12.g558400.t1.1	(1 of 1) K0(	Cre12.g558	1	1	1	48.619	451
Cre12.g558450.t1.2	Spermidine	Cre12.g558	8	8	8	34.646	318
Cre12.g558600.t1.2	NA	Cre12.g558	2	2	2	50.094	480
Cre12.g558900.t1.2	Cytochrom	Cre12.g558	17	17	17	20.247	198
Cre12.g559250.t1.2	14-3-3 prot	Cre12.g559	23	23	23	29.514	259
Cre12.g559950.t1.2	Adrenodox	Cre12.g559	1	1	1	18.402	171
Cre12.g560300.t3.1	(1 of 1) PTH	Cre12.g560	6	6	6	30.908	302
Cre12.g560900.t1.2	Amine oxid	Cre12.g560	11	11	11	49.102	467
Cre12.g560950.t1.2	Photosyste	Cre12.g560	3	3	3	13.223	126
Cre12.g561000.t1.1	Peptidyl-pr	Cre12.g561	4	4	4	35.512	337
Cre12.g561350.t1.1	(1 of 1) PTH	Cre12.g561	1	1	1	49.566	477
Cre12.g561400.t1.2	(1 of 19) PT	Cre12.g561	1	1	1	19.379	182
Cre12.g561500.t1.2	NA	Cre12.g561	3	3	3	30.909	311
Cre12.g561550.t1.2	Mitochond	Cre12.g561	1	1	1	111.27	1062
Cre13.g561850.t1.1	(1 of 1) 2.7.	Cre13.g561	4	4	4	41.452	394
Cre13.g562150.t1.2	(1 of 1) PTH	Cre13.g562	5	5	5	43.201	403
Cre13.g562450.t1.2	Importin b(	Cre13.g562	6	6	6	114.23	1042
Cre13.g562501.t1.1	(1 of 1) 2.7.	Cre13.g562	4	4	4	44.756	450
Cre13.g562550.t1.1	NADP adre	Cre13.g562	7	7	7	55.704	537
Cre13.g562850.t1.2	Thylakoid f	Cre13.g562	8	8	8	28.595	266
Cre13.g563150.t1.2	Predicted p	Cre13.g563	1	1	1	39.614	371
Cre13.g563850.t1.1	(1 of 1) K18	Cre13.g563	1	1	1	70.621	666
Cre13.g564050.t1.1	(1 of 1) PTH	Cre13.g564	2	2	2	28.609	268
Cre13.g564250.t1.2	Eukaryotic	Cre13.g564	10	10	10	116.21	1033
Cre13.g565450.t1.2	(1 of 1) K01	Cre13.g565	10	10	10	57.516	523
Cre13.g565650.t1.2	(1 of 1) K05	Cre13.g565	3	3	3	43.476	394
Cre13.g565800.t1.2	UDP-Gluco	Cre13.g565	22	22	22	39.358	344
Cre13.g565850.t1.1	Alpha subu	Cre13.g565	12	12	12	137.02	1245
Cre13.g566000.t1.2	(1 of 1) 6.3.	Cre13.g566	19	19	19	67.772	637
Cre13.g566050.t1.2	Small nucle	Cre13.g566	1	1	1	8.5219	77
Cre13.g566150.t1.2	(1 of 1) 2.1.	Cre13.g566	1	1	1	60.952	599
Cre13.g566650.t2.1	(1 of 2) 2.7.	Cre13.g566	11	11	11	73.227	672
Cre13.g566700.t1.1	(1 of 1) K11	Cre13.g566	1	1	1	24.615	224
Cre13.g566850.t1.2	SOUL heme	Cre13.g566	3	3	3	24.598	235
Cre13.g567450.t1.2	Histone H1	Cre13.g567	7	7	7	27.355	254
Cre13.g567600.t1.2	Mitochond	Cre13.g567	8	8	8	19.027	175
Cre13.g567700.t1.2	(1 of 1) KO(	Cre13.g567	4	4	3	15.262	144
Cre13.g567800.t1.2	Protein pho	Cre13.g567	6	6	6	58.093	502
Cre13.g567950.t1.2	ADP-glucos	Cre13.g567	32	32	32	55.613	512
Cre13.g568650.t1.2	Ribosomal	Cre13.g568	21	21	21	29.331	259
Cre13.g568800.t1.2	NADH:ubiq	Cre13.g568	8	8	8	17.953	165
Cre13.g568900.t1.2	Ribosomal	Cre13.g568	10	10	10	21.145	186
Cre13.g569250.t1.2	Predicted p	Cre13.g569	1	1	1	29.063	286
Cre13.g569350.t1.2	(1 of 1) PTH	Cre13.g569	4	4	4	37.661	367
Cre13.g570550.t1.2	Cytidine de	Cre13.g570	1	1	1	34.714	330
Cre13.g571300.t1.2	NA	Cre13.g571	1	1	1	30.937	288
Cre13.g571450.t2.1	(1 of 4) PTH	Cre13.g571	1	1	1	11.667	109
Cre13.g571650.t1.2	DNA-direct	Cre13.g571	1	1	1	8.9543	79
Cre13.g571700.t1.1	(1 of 5) PTH	Cre13.g571	1	1	1	56.264	504

Cre13.g571750.t1.2	(1 of 1) PTH	Cre13.g571	1	1	1	24.135	221
Cre13.g572900.t2.1	Oligopeptic	Cre13.g572	7	7	7	78.614	710
Cre13.g573150.t1.1	(1 of 1) PTH	Cre13.g573	1	1	1	80.407	726
Cre13.g573250.t1.2	(1 of 7) 2.8.	Cre13.g573	9	9	9	26.172	231
Cre13.g573351.t1.2	(1 of 1) K02	Cre13.g573	9	9	9	15.978	142
Cre13.g573400.t1.2	NA	Cre13.g573	5	5	5	24.706	242
Cre13.g575600.t1.2	NA	Cre13.g575	1	1	1	122	1165
Cre13.g576200.t1.2	(1 of 3) PF0	Cre13.g576	1	1	1	63.699	621
Cre13.g576400.t1.2	Branched-c	Cre13.g576	3	3	3	44.842	410
Cre13.g576650.t1.2	Bifunctiona	Cre13.g576	2	2	2	26.952	244
Cre13.g576760.t1.1	(1 of 6) PTH	Cre13.g576	2	2	2	38.845	372
Cre13.g577100.t1.2	Acyl-carrier	Cre13.g577	6	6	6	12.424	117
Cre13.g577450.t1.1	(1 of 1) 1.1.	Cre13.g577	1	1	1	73.716	708
Cre13.g577850.t1.1	Peptidyl-pr	Cre13.g577	2	2	2	20.433	193
Cre13.g577900.t1.2	(1 of 1) PF1	Cre13.g577	4	4	4	15.82	161
Cre13.g578012.t1.1	(1 of 2) PTH	Cre13.g578	1	1	1	64.011	625
Cre13.g578100.t1.1	(1 of 1) K14	Cre13.g578	2	2	2	233.48	2279
Cre13.g578150.t1.2	Regulator c	Cre13.g578	2	2	2	19.223	182
Cre13.g578451.t1.1	(1 of 2) 6.1.	Cre13.g578	7	7	7	105.33	960
Cre13.g578650.t1.1	Similar to c	Cre13.g578	12	12	12	66.138	610
Cre13.g578750.t1.2	PsbA transl	Cre13.g578	11	11	11	46.769	431
Cre13.g579150.t1.2	(1 of 1) PTH	Cre13.g579	1	1	1	16.969	153
Cre13.g579550.t1.1	Predicted p	Cre13.g579	3	3	3	27.627	246
Cre13.g579566.t2.1	(1 of 10) 2.4	Cre13.g579	1	1	1	59.917	625
Cre13.g579950.t1.2	(1 of 1) PTH	Cre13.g579	1	1	1	34.417	306
Cre13.g580500.t2.1	(1 of 2) PTH	Cre13.g580	1	1	1	15.623	141
Cre13.g580650.t1.2	(1 of 1) K17	Cre13.g580	1	1	1	58.827	575
Cre13.g580850.t2.1	(1 of 2) PTH	Cre13.g580	5	5	5	18.925	175
Cre13.g581450.t1.2	26S protea	Cre13.g581	4	4	4	43.364	385
Cre13.g581600.t1.2	Mitochond	Cre13.g581	20	20	20	34.017	325
Cre13.g581650.t1.2	Plastid ribo	Cre13.g581	8	8	8	16.875	162
Cre13.g581850.t1.2	(1 of 1) PTH	Cre13.g581	1	1	1	72.424	648
Cre13.g581900.t1.1	NA	Cre13.g581	1	1	1	81.997	776
Cre13.g582201.t1.1	(1 of 2) 2.7.	Cre13.g582	1	1	1	32.363	297
Cre13.g582350.t1.1	(1 of 1) K12	Cre13.g582	2	2	2	51.916	499
Cre13.g582800.t1.2	(1 of 1) 6.3.	Cre13.g582	6	6	6	67.404	625
Cre13.g583550.t1.2	Vesicle ind	Cre13.g583	21	21	21	31.612	288
Cre13.g584200.t1.2	(1 of 1) PF0	Cre13.g584	1	1	1	105.07	940
Cre13.g584400.t1.2	Flagellar As	Cre13.g584	1	1	1	101.97	868
Cre13.g584850.t1.1	(1 of 15) 2.1	Cre13.g584	1	1	1	26.382	242
Cre13.g585000.t3.1	NA	Cre13.g585	3	3	3	46.045	430
Cre13.g585100.t1.2	(1 of 3) PF0	Cre13.g585	5	5	5	55.289	554
Cre13.g585150.t1.2	Eukaryotic	Cre13.g585	3	3	3	26.36	245
Cre13.g585301.t1.1	(1 of 1) 2.4.	Cre13.g585	2	2	2	59.624	549
Cre13.g585350.t1.2	(1 of 1) PTH	Cre13.g585	2	2	2	23.792	226
Cre13.g585500.t1.2	Putative ha	Cre13.g585	5	5	5	46.317	431
Cre13.g585550.t1.1	Putative ha	Cre13.g585	1	1	1	47.817	438
Cre13.g585900.t1.2	Leukotrien	Cre13.g585	1	1	1	70.336	649
Cre13.g586050.t1.1	(1 of 1) PTH	Cre13.g586	2	2	2	79.711	783
Cre13.g586200.t1.2	(1 of 20) PT	Cre13.g586	1	1	1	45.104	450

Cre13.g586300.t1.2	Peptidyl-pr	Cre13.g586	5	5	5	11.669	108
Cre13.g586350.t1.1	(1 of 1) PTH	Cre13.g586	4	4	4	82.645	804
Cre13.g586916.t1.1	(1 of 2) K12	Cre13.g586	2	2	2	33.954	286
Cre13.g587050.t1.2	Eukaryotic	Cre13.g587	3	3	3	49.17	438
Cre13.g587500.t2.1	(1 of 2) 1.3.	Cre13.g587	2	2	2	64.18	596
Cre13.g588100.t1.2	Peptidyl-pr	Cre13.g588	5	5	5	29.127	280
Cre13.g589167.t1.2	NA	Cre13.g589	2	2	2	131.61	1303
Cre13.g589450.t1.2	(1 of 3) PTH	Cre13.g589	5	5	5	107.34	1042
Cre13.g590650.t1.2	(1 of 1) PF0	Cre13.g590	3	3	3	56.56	553
Cre13.g591200.t1.2	Histone H2	Cre13.g591	16	4	4	16.764	155
Cre13.g592200.t1.2	Glutamate	Cre13.g592	5	5	5	241.84	2251
Cre13.g592450.t1.2	Epsilon sub	Cre13.g592	6	6	6	31.595	288
Cre13.g592500.t1.1	(1 of 1) K0(	Cre13.g592	4	4	4	61.023	582
Cre13.g602350.t1.2	(1 of 1) K01	Cre13.g602	9	9	9	36.902	340
Cre13.g602450.t1.2	NA	Cre13.g602	9	9	9	23.563	227
Cre13.g602650.t1.2	(1 of 1) PTH	Cre13.g602	6	6	6	29.106	276
Cre13.g603000.t2.1	3',5'-cyclic-	Cre13.g603	4	4	4	46.881	416
Cre13.g603050.t1.2	NA	Cre13.g603	1	1	1	95.509	950
Cre13.g603225.t1.1	(1 of 2) K03	Cre13.g603	4	4	4	45.067	412
Cre13.g603500.t1.2	NA	Cre13.g603	5	5	5	18.307	173
Cre13.g603550.t1.2	NA	Cre13.g603	3	3	3	26.513	259
Cre13.g603650.t1.2	NA	Cre13.g603	1	1	1	9.4679	86
Cre13.g603700.t1.2	Actin	Cre13.g603	25	25	25	41.836	377
Cre13.g603750.t1.1	(1 of 2) PTH	Cre13.g603	1	1	1	189.89	1898
Cre13.g603850.t1.2	NA	Cre13.g603	1	1	1	34.748	343
Cre13.g603900.t1.2	(1 of 1) K01	Cre13.g603	8	8	8	68.599	625
Cre13.g604150.t1.2	(1 of 1) KO(	Cre13.g604	1	1	1	97.98	966
Cre13.g604650.t2.1	(1 of 1) PTH	Cre13.g604	18	18	17	41.427	387
Cre13.g605150.t1.2	Mn supero	Cre13.g605	5	5	5	24.852	223
Cre13.g605200.t2.1	(1 of 37) 3.4	Cre13.g605	1	1	1	76.563	712
Cre13.g605650.t1.2	(1 of 1) 1.2.	Cre13.g605	2	2	2	53.072	504
Cre13.g606050.t1.2	(1 of 1) PTH	Cre13.g606	4	4	4	52.806	492
Cre13.g606350.t2.1	(1 of 1) PF1	Cre13.g606	1	1	1	535.9	5604
Cre13.g606550.t1.1	NA	Cre13.g606	1	1	1	41.279	408
Cre13.g607000.t1.2	(1 of 2) 3.4.	Cre13.g607	1	1	1	58.841	570
Cre13.g607050.t1.2	Thiosulfate	Cre13.g607	2	2	2	36.005	342
Cre13.g607450.t1.1	Dihydroxya	Cre13.g607	1	1	1	62.804	637
Cre13.g607500.t1.2	(1 of 1) K10	Cre13.g607	1	1	1	74.967	694
Cre13.g607750.t1.2	Flagellar As	Cre13.g607	2	2	2	64.884	573
Cre13.g608000.t1.2	Predicted p	Cre13.g608	2	2	2	32.971	321
Cre14.g608150.t1.1	(1 of 4) PF1	Cre14.g608	1	1	1	463.09	4681
Cre14.g608700.t1.2	(1 of 1) 2.6.	Cre14.g608	2	2	2	64.046	619
Cre14.g608800.t1.2	(1 of 1) 1.1.	Cre14.g608	2	2	2	39.775	387
Cre14.g609030.t1.1	(1 of 2) 3.5.	Cre14.g609	1	1	1	34.831	330
Cre14.g609950.t1.2	NA	Cre14.g609	1	1	1	135.57	1423
Cre14.g610501.t1.1	(1 of 1) KO(	Cre14.g610	3	3	3	40.271	383
Cre14.g611450.t1.1	Plastid lipid	Cre14.g611	1	1	1	241.75	2559
Cre14.g611517.t1.1	(1 of 3) K07	Cre14.g611	1	1	1	48.842	463
Cre14.g611700.t1.1	Plastid lipid	Cre14.g611	1	1	1	126.73	1304
Cre14.g611950.t1.1	NA	Cre14.g611	2	2	2	64.217	628

Cre14.g612000.t1.2	(1 of 1) K17	Cre14.g612	1	1	1	149.33	1406
Cre14.g612250.t1.2	NA	Cre14.g612	1	1	1	46.18	421
Cre14.g612450.t1.2	Plastid ribo	Cre14.g612	9	9	9	26.041	246
Cre14.g612633.t1.1	(1 of 70) PF	Cre14.g612	7	7	7	1028.9	10698
Cre14.g612800.t1.2	NA	Cre14.g612	2	2	2	16.361	149
Cre14.g613134.t1.2	(1 of 8) 2.1.	Cre14.g613	2	2	2	67.861	655
Cre14.g613550.t1.2	Flagellar As	Cre14.g613	2	2	2	30.786	288
Cre14.g613600.t2.1	(1 of 2) PTH	Cre14.g613	3	3	3	15.954	148
Cre14.g614050.t1.1	(1 of 1) K16	Cre14.g614	1	1	1	83.834	805
Cre14.g614300.t1.2	(1 of 1) 1.1.	Cre14.g614	11	11	11	53.637	507
Cre14.g614600.t1.2	(1 of 2) 3.4.	Cre14.g614	5	5	5	21.097	206
Cre14.g614850.t1.1	Flagellar As	Cre14.g614	2	2	2	213.68	2057
Cre14.g614900.t2.1	(1 of 1) 6.1.	Cre14.g614	11	11	11	89.316	798
Cre14.g615000.t1.1	(1 of 3) K07	Cre14.g615	8	8	8	18.771	170
Cre14.g615800.t1.2	(1 of 4) PTH	Cre14.g615	1	1	1	91.636	908
Cre14.g615950.t1.1	(1 of 2) K03	Cre14.g615	9	8	8	115.54	1073
Cre14.g616100.t1.1	Peptidyl-pr	Cre14.g616	3	3	3	45.728	420
Cre14.g616250.t1.2	Polyketide	Cre14.g616	3	3	3	24.714	223
Cre14.g616600.t1.2	(1 of 1) PTH	Cre14.g616	13	13	13	107.96	1049
Cre14.g616650.t1.2	NA	Cre14.g616	4	1	1	104.62	963
Cre14.g616700.t1.1	(1 of 1) 2.6.	Cre14.g616	7	7	4	104.56	964
Cre14.g617550.t1.2	Outer dyne	Cre14.g617	2	2	2	21.341	184
Cre14.g617600.t1.2	DegP-type	Cre14.g617	1	1	1	66.124	619
Cre14.g617826.t1.1	(1 of 2) PTH	Cre14.g617	4	4	4	23.367	219
Cre14.g617900.t1.2	Ribosomal	Cre14.g617	8	8	8	14.864	130
Cre14.g618050.t1.2	Plastid lipid	Cre14.g618	3	3	3	23.759	227
Cre14.g619100.t1.2	Inactive sul	Cre14.g619	1	1	1	46.219	411
Cre14.g619133.t1.1	(1 of 1) K0C	Cre14.g619	10	10	10	68.879	635
Cre14.g619166.t1.1	(1 of 3) K03	Cre14.g619	5	5	5	36.345	322
Cre14.g619550.t2.1	20S protea	Cre14.g619	5	5	5	27.083	247
Cre14.g620300.t1.2	Anthranilat	Cre14.g620	3	3	3	25.022	229
Cre14.g620600.t1.2	Cell wall pr	Cre14.g620	6	6	6	51.691	495
Cre14.g620850.t1.2	(1 of 10) PF	Cre14.g620	2	2	2	53.833	535
Cre14.g621450.t1.2	Ribosomal	Cre14.g621	15	15	15	33.672	293
Cre14.g621650.t1.1	(1 of 2) K0C	Cre14.g621	16	16	16	36.593	349
Cre14.g621751.t1.1	(1 of 1) 2.7.	Cre14.g621	2	2	2	89.107	887
Cre14.g623000.t1.1	(1 of 1) PTH	Cre14.g623	5	5	5	36.452	336
Cre14.g624201.t1.1	(1 of 1) PTH	Cre14.g624	4	4	4	41.274	380
Cre14.g625000.t1.1	NA	Cre14.g625	1	1	1	31.039	296
Cre14.g625400.t1.1	26S protea	Cre14.g625	5	5	5	47.665	427
Cre14.g625550.t2.1	(1 of 1) PTH	Cre14.g625	1	1	1	25.802	246
Cre14.g625750.t2.1	22 kDa trar	Cre14.g625	4	4	4	36.822	330
Cre14.g626200.t1.1	(1 of 13) KC	Cre14.g626	3	3	3	30.848	277
Cre14.g626700.t1.2	Ferredoxin	Cre14.g626	4	4	4	13.232	126
Cre14.g626900.t1.2	(1 of 1) K17	Cre14.g626	6	6	6	27.652	244
Cre14.g627850.t1.2	(1 of 2) 1.1	Cre14.g627	5	5	5	33.415	309
Cre14.g628100.t1.2	Putative hn	Cre14.g628	3	3	3	55.757	546
Cre14.g629464.t1.1	(1 of 88) PT	Cre14.g629	1	1	1	98.839	917
Cre14.g629550.t1.2	(1 of 1) K0E	Cre14.g629	3	3	3	40.198	388
Cre14.g629700.t1.1	NADP mali	Cre14.g629	2	2	2	67.673	623

Cre14.g630100.t1.2	Ribosomal	Cre14.g63(	16	16	16	24.483	218
Cre14.g630400.t1.2	(1 of 1) 1.1	Cre14.g63(	2	2	2	36.408	353
Cre14.g630550.t1.1	DegP-type	Cre14.g63(	1	1	1	79.133	823
Cre14.g630847.t1.1	(1 of 1) PTH	Cre14.g63(	19	19	19	41.82	399
Cre14.g631600.t1.2	(1 of 1) 1.5	Cre14.g631	10	10	10	23.971	229
Cre14.g631900.t1.2	(1 of 1) K14	Cre14.g631	2	2	2	33.167	292
Cre14.g632000.t1.1	GrpE nucle	Cre14.g632	1	1	1	152.27	1442
Cre14.g632350.t1.1	Flagellar As	Cre14.g632	4	4	4	37.39	394
Cre14.g632450.t1.1	(1 of 2) PTH	Cre14.g632	8	8	8	105.34	1054
Cre14.g632775.t1.1	(1 of 1) K03	Cre14.g632	4	4	4	54.122	494
Cre14.g632950.t1.2	Componen	Cre14.g632	2	2	2	242.67	2314
Cre14.g633100.t1.2	(1 of 1) PF1	Cre14.g633	1	1	1	83.943	865
Cre14.g633550.t1.2	(1 of 1) 2.3	Cre14.g633	1	1	1	13.661	130
Cre14.g633750.t1.1	Importin be	Cre14.g633	14	14	14	121.66	1129
Cre15.g635067.t1.1	(1 of 3) PTH	Cre15.g635	2	2	2	87.09	857
Cre15.g635600.t1.2	(1 of 1) K03	Cre15.g635	6	6	6	21.332	201
Cre15.g635650.t2.1	(1 of 12) PF	Cre15.g635	25	25	25	280.22	2788
Cre15.g635850.t2.1	Mitochond	Cre15.g635	11	11	11	35.093	324
Cre15.g636050.t1.2	Predicted p	Cre15.g636	8	8	8	26.589	246
Cre15.g636300.t1.2	Tubulin fol	Cre15.g636	1	1	1	31.803	289
Cre15.g636800.t1.1	(1 of 15) 2.	Cre15.g636	1	1	1	22.808	208
Cre15.g636950.t1.2	NA	Cre15.g636	1	1	1	35.216	360
Cre15.g638400.t1.2	NA	Cre15.g638	6	6	6	18.334	173
Cre15.g638500.t1.2	Ubiquinol:c	Cre15.g638	1	1	1	33.834	314
Cre15.g638700.t1.1	RAP-domai	Cre15.g638	1	1	1	99.605	963
Cre15.g639150.t2.1	(1 of 1) K17	Cre15.g639	3	3	3	98.929	928
Cre15.g639900.t1.1	(1 of 100) F	Cre15.g639	1	1	1	88.988	839
Cre15.g640450.t1.2	(1 of 85) PT	Cre15.g640	1	1	1	86.941	832
Cre15.g641000.t2.1	(1 of 1) KO(	Cre15.g641	3	3	3	46.008	473
Cre15.g641250.t1.2	(1 of 1) PTH	Cre15.g641	2	2	2	19.74	181
Cre15.g643550.t1.2	Pyridoxin b	Cre15.g643	15	15	15	31.543	296
Cre15.g643600.t1.2	Iron-sulfur	Cre15.g643	5	5	5	58.771	530
Cre15.g643703.t1.1	(1 of 2) KO(	Cre15.g643	1	1	1	44.952	453
Cre16.g648050.t1.2	NA	Cre16.g648	1	1	1	14.375	133
Cre16.g648700.t2.1	(1 of 18) KC	Cre16.g648	1	1	1	68.971	632
Cre16.g649350.t1.1	NA	Cre16.g649	3	3	3	40.71	381
Cre16.g649600.t1.2	Puf protein	Cre16.g649	1	1	1	86.082	830
Cre16.g649800.t1.1	Cyclin-relat	Cre16.g649	1	1	1	128.61	1277
Cre16.g650050.t1.2	(1 of 2) PTH	Cre16.g650	1	1	1	25.87	237
Cre16.g650550.t2.1	Flagellar As	Cre16.g650	11	6	6	16.541	150
Cre16.g650800.t1.1	Mitochond	Cre16.g650	1	1	1	9.3496	84
Cre16.g651050.t1.2	Cytochrom	Cre16.g651	1	1	1	15.426	148
Cre16.g651550.t1.2	Mitochond	Cre16.g651	8	8	1	25.719	234
Cre16.g651750.t1.2	(1 of 2) K01	Cre16.g651	16	16	15	129.98	1177
Cre16.g651923.t1.2	(1 of 1) PTH	Cre16.g651	3	3	3	66.914	614
Cre16.g652100.t1.2	(1 of 1) PTH	Cre16.g652	1	1	1	55.249	510
Cre16.g652550.t1.2	Plastid ribo	Cre16.g652	8	8	8	18.27	170
Cre16.g652900.t1.1	(1 of 16) KC	Cre16.g652	1	1	1	32.273	320
Cre16.g653350.t1.2	(1 of 1) 3.5	Cre16.g653	4	4	4	66.185	609
Cre16.g654300.t1.2	Radial spok	Cre16.g654	3	3	3	61.364	586

Cre16.g654500.t1.1	Eukaryotic	Cre16.g654	5	5	5	31.982	291
Cre16.g655050.t1.2	NA	Cre16.g655	1	1	1	52.51	516
Cre16.g655150.t1.2	(1 of 2) PTH	Cre16.g655	5	5	5	20.243	192
Cre16.g655750.t1.2	(1 of 1) PTH	Cre16.g655	8	8	8	52.839	482
Cre16.g656250.t1.1	U1 small nu	Cre16.g656	1	1	1	45.511	394
Cre16.g656400.t1.2	UDP-sulfoq	Cre16.g656	8	8	8	52.873	479
Cre16.g657200.t1.1	(1 of 6) 1.1.	Cre16.g657	1	1	1	60.676	561
Cre16.g657350.t1.2	(1 of 4) PTH	Cre16.g657	1	1	1	46.381	416
Cre16.g657550.t1.1	(1 of 1) KO(	Cre16.g657	1	1	1	64.457	588
Cre16.g657650.t1.2	Flagellar As	Cre16.g657	2	2	2	13.086	125
Cre16.g658075.t1.1	(1 of 2) K01	Cre16.g658	1	1	1	24.809	228
Cre16.g658450.t1.2	(1 of 1) K03	Cre16.g658	1	1	1	33.321	305
Cre16.g659350.t1.2	Cytochrom	Cre16.g659	1	1	1	15.006	139
Cre16.g659600.t1.1	(1 of 1) K14	Cre16.g659	2	2	2	109.78	1064
Cre16.g659700.t1.2	NA	Cre16.g659	1	1	1	10.664	102
Cre16.g659850.t1.2	Shikimate k	Cre16.g659	4	4	4	27.451	246
Cre16.g659950.t1.1	Plastid ribo	Cre16.g659	28	28	28	72.029	673
Cre16.g660150.t1.2	(1 of 1) K02	Cre16.g660	8	8	8	13.307	121
Cre16.g660750.t1.1	(1 of 1) K19	Cre16.g660	1	1	1	223.38	2093
Cre16.g661050.t1.2	Ribosomal	Cre16.g661	9	9	9	13.576	117
Cre16.g661350.t1.2	Rubisco lar	Cre16.g661	4	4	4	51.822	483
Cre16.g661750.t1.2	(1 of 2) PF0	Cre16.g661	1	1	1	38.467	354
Cre16.g662000.t1.2	(1 of 1) K17	Cre16.g662	2	2	2	68.721	652
Cre16.g662300.t1.2	U6 snRNA-a	Cre16.g662	1	1	1	11.194	97
Cre16.g662550.t1.2	Small ubiqu	Cre16.g662	4	4	4	16.386	153
Cre16.g662702.t1.1	(1 of 2) K14	Cre16.g662	1	1	1	76.742	702
Cre16.g663500.t1.2	26S protea	Cre16.g663	2	2	2	38.388	386
Cre16.g663900.t1.2	Porphobilir	Cre16.g663	27	27	27	37.372	349
Cre16.g664000.t1.2	(1 of 21) PT	Cre16.g664	1	1	1	55.754	527
Cre16.g664050.t2.1	(1 of 1) PF0	Cre16.g664	1	1	1	77.66	733
Cre16.g664550.t1.2	Serine hydr	Cre16.g664	23	23	23	57.173	520
Cre16.g665200.t1.2	NA	Cre16.g665	5	5	5	50	460
Cre16.g665250.t1.2	Thykaloid a	Cre16.g665	3	3	3	29.63	276
Cre16.g665364.t1.1	(1 of 1) K17	Cre16.g665	2	2	2	49.484	465
Cre16.g665400.t1.2	Small nucle	Cre16.g665	2	2	2	12.644	114
Cre16.g665650.t1.1	(1 of 1) K03	Cre16.g665	2	2	2	58.752	534
Cre16.g666050.t1.2	Saccharopi	Cre16.g666	5	5	5	48.623	448
Cre16.g666301.t1.2	Ribosomal	Cre16.g666	3	3	3	6.9722	62
Cre16.g668050.t2.1	(1 of 3) PF1	Cre16.g668	1	1	1	43.689	402
Cre16.g669550.t1.2	Cystathioni	Cre16.g669	4	4	4	75.674	721
Cre16.g670300.t2.1	Nuclear pre	Cre16.g670	8	8	8	80.702	744
Cre16.g670400.t1.1	(1 of 1) KO(	Cre16.g670	1	1	1	54.309	534
Cre16.g670800.t1.2	(1 of 1) K17	Cre16.g670	4	4	4	12.897	112
Cre16.g670973.t1.1	Glutathion	Cre16.g670	4	4	4	23.427	214
Cre16.g671000.t1.2	Type-II NAI	Cre16.g671	4	4	4	54.948	547
Cre16.g671100.t1.2	(1 of 1) K12	Cre16.g671	1	1	1	48.941	466
Cre16.g671350.t1.2	Periplasmic	Cre16.g671	15	3	3	72.511	649
Cre16.g671400.t1.2	Periplasmic	Cre16.g671	16	16	4	72.472	649
Cre16.g671750.t1.1	Prefoldin b	Cre16.g671	3	3	3	14.337	125
Cre16.g671950.t1.1	NA	Cre16.g671	1	1	1	51.707	473

Cre16.g672150.t1.2	(1 of 1) K13	Cre16.g672	3	3	3	77.851	726
Cre16.g672300.t1.2	(1 of 1) PTH	Cre16.g672	3	3	3	22.663	206
Cre16.g672385.t1.1	Histidinol p	Cre16.g672	7	7	7	41.764	373
Cre16.g672650.t1.2	Mitochond	Cre16.g672	22	22	22	29.207	275
Cre16.g672750.t1.2	(1 of 2) K14	Cre16.g672	5	5	5	35.396	338
Cre16.g672800.t1.2	GDP-D-mar	Cre16.g672	10	10	10	39.561	360
Cre16.g673001.t2.1	(1 of 1) PTH	Cre16.g673	4	4	4	14.165	131
Cre16.g673109.t1.1	Acyl-carrier	Cre16.g673	3	3	3	13.668	128
Cre16.g673550.t1.1	(1 of 1) 5.3.	Cre16.g673	6	6	6	92.267	878
Cre16.g673617.t1.1	Peptide cha	Cre16.g673	1	1	1	40.421	361
Cre16.g673650.t1.1	Minor chlo	Cre16.g673	15	15	15	30.714	289
Cre16.g673729.t1.1	Chaperonir	Cre16.g673	5	5	5	13.555	128
Cre16.g673953.t1.1	Peptidyl-pr	Cre16.g673	1	1	1	19.263	184
Cre16.g674300.t1.1	Flagellar As	Cre16.g674	1	1	1	32.652	309
Cre16.g674700.t1.2	(1 of 1) 3.2.	Cre16.g674	1	1	1	39.475	379
Cre16.g674800.t1.2	NA	Cre16.g674	1	1	1	25.46	237
Cre16.g674950.t1.2	(1 of 3) 5.2.	Cre16.g674	9	9	9	60.169	558
Cre16.g674964.t1.1	(1 of 1) K06	Cre16.g674	4	4	4	32.34	301
Cre16.g675350.t1.1	(1 of 1) 3.4.	Cre16.g675	2	2	2	155.19	1492
Cre16.g675450.t3.1	(1 of 1) PTH	Cre16.g675	1	1	1	23.88	224
Cre16.g675500.t1.2	Peptidyl-pr	Cre16.g675	4	1	1	18.272	175
Cre16.g675550.t3.1	Peptidyl-pr	Cre16.g675	8	8	5	16.564	154
Cre16.g675637.t1.1	(1 of 3) K12	Cre16.g675	2	2	2	10.255	94
Cre16.g675650.t1.2	(1 of 1) 1.2.	Cre16.g675	16	16	16	58.16	553
Cre16.g676197.t1.1	26S protea	Cre16.g676	2	2	2	96.473	900
Cre16.g676314.t1.1	Eukaryotic	Cre16.g676	7	7	7	37.31	330
Cre16.g676450.t1.2	Predicted p	Cre16.g676	1	1	1	21.294	192
Cre16.g677000.t1.2	Heat shock	Cre16.g677	30	30	30	84.151	774
Cre16.g677026.t1.1	Pyruvate d	Cre16.g677	4	4	4	38.151	353
Cre16.g677765.t1.1	(1 of 4) PF0	Cre16.g677	4	4	4	227.87	2191
Cre16.g677450.t1.2	(1 of 2) 5.1.	Cre16.g677	5	5	5	35.833	331
Cre16.g677500.t1.2	Adenosine	Cre16.g677	10	10	10	23.958	218
Cre16.g678213.t1.1	(1 of 1) K01	Cre16.g678	3	3	3	36.125	331
Cre16.g678851.t1.1	(1 of 1) PTH	Cre16.g678	2	2	2	30.293	285
Cre16.g679150.t1.2	(1 of 1) 3.5.	Cre16.g679	3	3	3	52.537	492
Cre16.g679164.t1.1	(1 of 1) K15	Cre16.g679	1	1	1	28.736	271
Cre16.g679500.t1.2	NADH:ubiq	Cre16.g679	5	5	5	10.999	101
Cre16.g679550.t1.1	Flagellar As	Cre16.g679	6	6	6	34.981	332
Cre16.g679600.t1.2	(1 of 1) K11	Cre16.g679	3	3	3	31.655	295
Cre16.g679669.t1.1	4-diphosph	Cre16.g679	2	2	2	34.065	319
Cre16.g679781.t1.1	(1 of 5) 2.1.	Cre16.g679	2	2	2	49.994	469
Cre16.g679800.t1.2	(1 of 2) PTH	Cre16.g679	3	3	3	26.126	246
Cre16.g680000.t1.2	Mitochond	Cre16.g680	12	12	12	25.879	233
Cre16.g680230.t1.1	SEC61-gam	Cre16.g680	1	1	1	7.6683	68
Cre16.g680700.t1.2	(1 of 4) 6.3.	Cre16.g680	9	9	9	31.049	288
Cre16.g680944.t1.1	(1 of 1) K14	Cre16.g680	1	1	1	72.836	684
Cre16.g681238.t1.1	(1 of 1) K03	Cre16.g681	2	2	2	68.271	669
Cre16.g681850.t1.2	(1 of 2) 2.4.	Cre16.g681	6	6	6	51.569	455
Cre16.g682100.t1.2	(1 of 1) 1.1.	Cre16.g682	3	3	3	28.481	269
Cre16.g682300.t1.2	Ribosomal	Cre16.g682	4	4	4	13.216	112

Cre16.g682725.t1.1	Glutathion	Cre16.g682	6	6	6	23.937	217
Cre16.g682800.t1.2	NA	Cre16.g682	1	1	1	45.071	443
Cre16.g682900.t2.1	Non-cataly	Cre16.g682	2	2	2	29.896	267
Cre16.g683050.t1.1	RNase J-lik	Cre16.g683	4	4	4	98.3	920
Cre16.g683081.t1.1	(1 of 3) K0	Cre16.g683	2	2	2	19.07	171
Cre16.g683200.t1.2	NA	Cre16.g683	3	3	3	23.513	218
Cre16.g683793.t1.1	(1 of 1) K14	Cre16.g683	4	4	4	89.702	838
Cre16.g683950.t1.2	Alpha Subu	Cre16.g683	2	2	2	72.36	687
Cre16.g683953.t1.1	(1 of 24) PF	Cre16.g683	1	1	1	249	2537
Cre16.g684150.t1.2	NA	Cre16.g684	6	6	6	28.426	273
Cre16.g684350.t1.2	(1 of 6) PTH	Cre16.g684	3	3	3	30.744	295
Cre16.g684715.t1.1	Dicer-like p	Cre16.g684	2	2	2	391.4	3902
Cre16.g684750.t1.2	(1 of 1) 1.1.	Cre16.g684	5	5	5	39.142	361
Cre16.g684900.t1.1	NA	Cre16.g684	1	1	1	70.669	673
Cre16.g685050.t1.1	PRLI-intera	Cre16.g685	1	1	1	34.329	316
Cre16.g685450.t1.1	Flagellar in	Cre16.g685	1	1	1	470.22	4209
Cre16.g685500.t2.1	(1 of 3) KO	Cre16.g685	3	3	3	37.91	365
Cre16.g685550.t1.2	O-acetylser	Cre16.g685	16	16	15	37.927	359
Cre16.g685573.t1.1	Flagellar As	Cre16.g685	5	5	5	45.625	403
Cre16.g685900.t1.2	Protein-/Hi	Cre16.g685	1	1	1	68.035	658
Cre16.g686650.t1.2	(1 of 1) PTH	Cre16.g686	1	1	1	87.362	886
Cre16.g687182.t1.1	NA	Cre16.g687	9	9	9	63.246	586
Cre16.g687200.t1.1	NA	Cre16.g687	1	1	1	16.768	161
Cre16.g687294.t1.1	(1 of 1) PTH	Cre16.g687	1	1	1	12.339	113
Cre16.g687300.t1.2	(1 of 3) PF1	Cre16.g687	8	8	8	21.036	205
Cre16.g687301.t1.1	(1 of 1) K15	Cre16.g687	1	1	1	186.55	1826
Cre16.g687350.t1.2	(1 of 1) PTH	Cre16.g687	5	5	5	67.577	632
Cre16.g687518.t1.1	Eukaryotic	Cre16.g687	1	1	1	36.338	335
Cre16.g687900.t1.2	Light-harve	Cre16.g687	9	9	9	26.222	241
Cre16.g687950.t1.2	Electron tra	Cre16.g687	7	7	7	37.081	363
Cre16.g688050.t1.1	(1 of 1) PTH	Cre16.g688	8	8	8	53.282	503
Cre16.g688526.t1.1	(1 of 1) PF0	Cre16.g688	1	1	1	157.52	1518
Cre16.g688550.t1.2	Glutathion	Cre16.g688	6	6	6	23.958	218
Cre16.g688800.t1.2	NA	Cre16.g688	1	1	1	20.64	193
Cre16.g689050.t1.1	(1 of 1) PTH	Cre16.g689	2	2	2	78.41	735
Cre16.g689087.t1.1	(1 of 1) PTH	Cre16.g689	2	2	2	38.208	353
Cre16.g689600.t1.2	Flagellar As	Cre16.g689	2	2	2	35.614	308
Cre16.g689647.t1.1	Argonaute-	Cre16.g689	6	6	6	108.34	1053
Cre16.g689650.t1.2	Autophagy	Cre16.g689	1	1	1	15.266	134
Cre16.g689700.t1.1	(1 of 1) 1.1.	Cre16.g689	2	2	2	41.68	385
Cre16.g689871.t1.1	(1 of 1) PTH	Cre16.g689	5	5	5	115.13	1080
Cre16.g690431.t2.1	(1 of 1) 1.3.	Cre16.g690	5	5	5	53.362	494
Cre16.g690500.t1.2	Nucleolar p	Cre16.g690	8	8	8	17.664	162
Cre16.g690767.t1.1	(1 of 2) PF0	Cre16.g690	1	1	1	42.138	400
Cre16.g691000.t1.2	Organellar	Cre16.g691	8	8	8	23.877	216
Cre16.g691800.t1.1	(1 of 2) 1.5.	Cre16.g691	10	10	10	69.108	635
Cre16.g691850.t1.2	Cytochrom	Cre16.g691	5	5	5	11.682	105
Cre16.g692751.t1.1	(1 of 1) K13	Cre16.g692	7	7	7	15.269	139
Cre16.g692800.t1.1	(1 of 2) 1.1.	Cre16.g692	2	2	2	29.608	274
Cre16.g692901.t1.1	(1 of 3) PTH	Cre16.g692	8	8	8	57.147	518

Cre16.g693202.t1.1	(1 of 1) K0(	Cre16.g693	3	2	2	68.598	621
Cre16.g693500.t1.1	Hydroxypro	Cre16.g693	2	2	2	42.194	421
Cre16.g693601.t1.1	(1 of 5) PTH	Cre16.g693	1	1	1	39.648	393
Cre16.g693700.t1.2	Ubiquitin-c	Cre16.g693	1	1	1	16.701	148
Cre16.g694202.t1.1	(1 of 39) PT	Cre16.g694	2	2	2	26.689	241
Cre16.g694400.t1.2	Permease-l	Cre16.g694	1	1	1	34.61	328
Cre16.g694450.t1.2	DnaJ-like p	Cre16.g694	1	1	1	100.99	1012
Cre16.g694850.t1.2	N-acetylglu	Cre16.g694	5	5	5	47.357	464
Cre16.g694950.t1.1	(1 of 543) 2	Cre16.g694	1	1	1	44.255	410
Cre16.g695050.t1.2	(1 of 1) 1.1	Cre16.g695	4	4	4	76.539	734
Cre16.g695450.t3.1	(1 of 1) PTH	Cre16.g695	1	1	1	60.501	560
Cre16.g695900.t1.1	NA	Cre16.g695	4	4	4	25.095	230
Cre16.g696000.t1.2	(1 of 2) 2.7	Cre16.g696	28	28	28	156.04	1493
Cre17.g696250.t1.1	(1 of 2) K03	Cre17.g696	10	10	10	182.69	1774
Cre17.g696850.t1.2	(1 of 2) K17	Cre17.g696	1	1	1	23.706	222
Cre17.g697300.t1.1	(1 of 1) 3.4	Cre17.g697	1	1	1	223.5	2118
Cre17.g697334.t1.2	(1 of 10) PF	Cre17.g697	1	1	1	80.69	734
Cre17.g697350.t1.2	(1 of 1) K12	Cre17.g697	3	3	3	32.516	303
Cre17.g697450.t1.2	(1 of 1) K15	Cre17.g697	4	4	4	60.55	530
Cre17.g697624.t1.2	(1 of 1) K12	Cre17.g697	1	1	1	19.668	193
Cre17.g697650.t1.1	(1 of 1) K01	Cre17.g697	3	3	3	91.95	839
Cre17.g698000.t1.2	Mitochond	Cre17.g698	33	33	33	61.821	574
Cre17.g698450.t1.2	(1 of 3) 1.5	Cre17.g698	6	6	6	38.1	369
Cre17.g699000.t2.1	Phosphate	Cre17.g699	5	5	5	84.987	809
Cre17.g699600.t1.2	Sugar bisp	Cre17.g699	1	1	1	37.009	360
Cre17.g699650.t1.1	NA	Cre17.g699	1	1	1	28.834	284
Cre17.g700250.t1.2	NA	Cre17.g700	1	1	1	105.75	1053
Cre17.g701200.t2.1	Ribosomal	Cre17.g701	9	9	9	15.341	137
Cre17.g701250.t1.2	Flagellar As	Cre17.g701	2	2	2	105.33	925
Cre17.g701500.t1.2	DnaJ-like p	Cre17.g701	8	8	8	48.354	450
Cre17.g701650.t1.2	Ribosomal	Cre17.g701	11	11	11	15.265	135
Cre17.g701700.t2.1	Plastid acyl	Cre17.g701	13	13	13	44.71	401
Cre17.g702200.t1.2	Predicted p	Cre17.g702	3	3	3	31.24	290
Cre17.g702650.t1.1	(1 of 10) PF	Cre17.g702	3	3	3	43.164	403
Cre17.g703700.t1.1	Succinate-(	Cre17.g703	8	8	8	44.476	421
Cre17.g703850.t1.2	Outer dyne	Cre17.g703	4	4	4	83.38	749
Cre17.g704350.t1.2	(1 of 1) PTH	Cre17.g704	1	1	1	33.496	307
Cre17.g704850.t1.2	(1 of 1) K0(	Cre17.g704	2	2	2	19.676	181
Cre17.g705000.t1.2	Calcium-de	Cre17.g705	12	12	12	67.447	613
Cre17.g705400.t1.2	20S protea	Cre17.g705	8	8	8	27.504	249
Cre17.g705550.t1.2	(1 of 1) K13	Cre17.g705	1	1	1	89.994	858
Cre17.g706600.t1.2	NA	Cre17.g706	3	3	3	18.37	166
Cre17.g706800.t1.2	(1 of 1) PTH	Cre17.g706	5	5	5	22.001	205
Cre17.g707900.t1.2	NA	Cre17.g707	3	3	3	37.029	355
Cre17.g708100.t1.2	(1 of 3) 2.4	Cre17.g708	2	2	2	24.871	228
Cre17.g708300.t1.2	26S protea	Cre17.g708	7	7	7	29.165	265
Cre17.g708450.t1.1	(1 of 37) 3.4	Cre17.g708	1	1	1	85.392	798
Cre17.g708750.t1.2	NA	Cre17.g708	8	8	8	34.457	314
Cre17.g708800.t1.1	Glutathion	Cre17.g708	8	8	8	52.903	494
Cre17.g709850.t1.2	Acetate kin	Cre17.g709	2	2	2	43.499	414

Cre17.g709950.t1.2	(1 of 1) K08	Cre17.g709	2	2	2	41.978	382
Cre17.g710050.t1.1	(1 of 6) PF0	Cre17.g710	1	1	1	119.27	1171
Cre17.g710100.t1.1	(1 of 1) K14	Cre17.g710	1	1	1	48.101	458
Cre17.g710150.t1.2	26S protea	Cre17.g710	7	7	6	44.764	399
Cre17.g710300.t1.1	(1 of 70) PF	Cre17.g710	1	1	1	80.087	763
Cre17.g710800.t2.1	Iron-sulfur	Cre17.g710	1	1	1	51.042	484
Cre17.g712000.t1.1	Serine/argi	Cre17.g712	3	3	3	25.538	224
Cre17.g712100.t1.2	Pyridine nu	Cre17.g712	9	9	9	45.493	445
Cre17.g712300.t1.1	NA	Cre17.g712	5	5	5	100.35	995
Cre17.g712600.t1.2	NA	Cre17.g712	2	2	2	78.148	731
Cre17.g713200.t1.1	Chloroplast	Cre17.g713	2	2	2	53.715	519
Cre17.g714700.t1.1	(1 of 20) PT	Cre17.g714	1	1	1	160.74	1609
Cre17.g715250.t1.2	Acetyl-CoA	Cre17.g715	5	5	5	23.576	228
Cre17.g715350.t2.1	(1 of 1) K12	Cre17.g715	5	5	5	46.192	442
Cre17.g715500.t1.2	(1 of 1) PTH	Cre17.g715	15	15	15	25.364	232
Cre17.g715750.t1.2	COP-II coat	Cre17.g715	1	1	1	32.596	299
Cre17.g717100.t2.1	(1 of 66) KC	Cre17.g717	2	2	2	74.05	688
Cre17.g717350.t1.2	(1 of 1) 2.5.	Cre17.g717	1	1	1	65.84	644
Cre17.g717750.t1.2	(1 of 1) PTH	Cre17.g717	1	1	1	27.236	240
Cre17.g717800.t1.2	(1 of 1) K14	Cre17.g717	3	3	3	97.797	952
Cre17.g718468.t1.2	(1 of 37) 3.-	Cre17.g718	2	1	1	67.655	636
Cre17.g718500.t1.1	Matrix met	Cre17.g718	16	16	15	74.084	677
Cre17.g719000.t1.2	Exon juncti	Cre17.g719	10	10	10	48.784	435
Cre17.g719900.t1.2	Phosphoglu	Cre17.g719	6	6	6	130.61	1244
Cre17.g720050.t1.2	FtsH-like m	Cre17.g720	23	23	22	74.384	689
Cre17.g720250.t1.2	Chlorophyll	Cre17.g720	24	24	24	29.938	280
Cre17.g720450.t1.1	(1 of 36) PT	Cre17.g720	4	4	4	107.11	996
Cre17.g721250.t1.2	Flagellar As	Cre17.g721	3	3	3	49.673	443
Cre17.g721300.t1.2	Mitochond	Cre17.g721	4	4	4	14.324	123
Cre17.g721500.t1.2	Granule-bo	Cre17.g721	18	18	18	76.617	726
Cre17.g721553.t1.2	NA	Cre17.g721	1	1	1	8.1514	74
Cre17.g721600.t1.1	(1 of 1) K12	Cre17.g721	1	1	1	49.221	455
Cre17.g721700.t1.2	Thylakoid lu	Cre17.g721	3	3	3	25.676	239
Cre17.g722350.t1.2	Small Rab-r	Cre17.g722	1	1	1	25.896	229
Cre17.g722650.t1.2	NA	Cre17.g722	2	2	2	16.097	156
Cre17.g722750.t1.2	NA	Cre17.g722	5	5	5	38.977	363
Cre17.g723250.t1.2	Chloroplast	Cre17.g723	1	1	1	143.06	1319
Cre17.g723600.t1.2	Intraflagell	Cre17.g723	2	2	2	77.073	683
Cre17.g723650.t1.2	Acetyl-CoA	Cre17.g723	9	9	9	47.358	461
Cre17.g723900.t1.2	Flagellar As	Cre17.g723	1	1	1	39.098	354
Cre17.g724200.t1.2	La protein	Cre17.g724	11	11	11	50.121	468
Cre17.g724300.t1.2	Photosyste	Cre17.g724	5	5	5	11.201	113
Cre17.g724350.t1.2	20S protea	Cre17.g724	8	8	8	26.199	241
Cre17.g724550.t1.2	Deflagellati	Cre17.g724	3	3	3	12.71	111
Cre17.g724850.t1.2	(1 of 1) K14	Cre17.g724	1	1	1	53.241	495
Cre17.g725301.t1.1	(1 of 3) PTH	Cre17.g725	2	2	2	60.234	596
Cre17.g725350.t2.1	(1 of 1) PTH	Cre17.g725	11	11	11	52.897	486
Cre17.g725400.t1.2	NA	Cre17.g725	1	1	1	13.827	124
Cre17.g725550.t1.2	Glucose-6-p	Cre17.g725	2	2	2	54.95	499
Cre17.g726050.t1.2	(1 of 1) K11	Cre17.g726	2	2	2	56.036	515

Cre17.g726100.t1.2	(1 of 3) 2.7.	Cre17.g726	3	3	3	34.672	327
Cre17.g726750.t1.2	3-deoxy-D-	Cre17.g726	11	11	11	55.747	502
Cre17.g726850.t1.2	(1 of 3) K11	Cre17.g726	10	10	10	83.398	805
Cre17.g727300.t1.2	(1 of 3) 1.3.	Cre17.g727	1	1	1	41.59	391
Cre17.g727700.t1.1	(1 of 1) PTH	Cre17.g727	6	6	5	86.791	826
Cre17.g727950.t1.1	26S protea	Cre17.g727	5	5	5	108.43	1034
Cre17.g728100.t1.2	(1 of 2) K14	Cre17.g728	5	5	5	50.187	477
Cre17.g728800.t1.2	Isocitrate d	Cre17.g728	3	3	3	41.083	384
Cre17.g729150.t1.2	(1 of 90) PF	Cre17.g729	7	7	7	31.371	293
Cre17.g730250.t1.1	(1 of 1) PTH	Cre17.g730	1	1	1	18.542	168
Cre17.g731100.t1.2	(1 of 1) KO(	Cre17.g731	1	1	1	40.648	372
Cre17.g731350.t1.1	(1 of 1) 1.1.	Cre17.g731	2	2	2	34.409	323
Cre17.g731850.t1.2	(1 of 1) 1.3.	Cre17.g731	1	1	1	31.271	301
Cre17.g732300.t1.2	Galactose k	Cre17.g732	9	9	9	54.883	518
Cre17.g732350.t2.1	Glyoxal or g	Cre17.g732	3	3	3	116.93	1109
Cre17.g734100.t1.2	(1 of 1) 6.3.	Cre17.g734	27	27	27	50.051	463
Cre17.g734200.t1.2	L,L-diaminc	Cre17.g734	23	23	23	47.849	441
Cre17.g734300.t2.1	(1 of 2) PTH	Cre17.g734	4	4	4	102.3	967
Cre17.g734400.t1.1	Ubiquitin li	Cre17.g734	3	3	3	87.622	747
Cre17.g734450.t1.2	Plastid ribo	Cre17.g734	4	4	4	16.596	153
Cre17.g734500.t1.2	Vacuolar A	Cre17.g734	10	10	10	26.244	232
Cre17.g734516.t1.1	26S protea	Cre17.g734	2	2	2	43.701	402
Cre17.g734548.t1.1	Pyruvate pl	Cre17.g734	13	13	13	104.45	967
Cre17.g734644.t1.1	(1 of 1) 1.1.	Cre17.g734	1	1	1	55.864	523
Cre17.g734900.t2.1	(1 of 1) 3.4.	Cre17.g734	6	6	6	58.08	531
Cre17.g737050.t1.2	(1 of 1) PTH	Cre17.g737	5	5	5	43.347	404
Cre17.g737100.t1.2	Flagellar As	Cre17.g737	5	5	5	59.908	505
Cre17.g737250.t1.2	Elongation	Cre17.g737	7	6	6	109.24	989
Cre17.g738300.t1.2	Acidic ribos	Cre17.g738	4	4	4	10.875	107
Cre17.g738600.t1.1	RegA/RlsA-	Cre17.g738	1	1	1	149.32	1514
Cre17.g739450.t1.1	DR1-like pr	Cre17.g739	1	1	1	19.561	189
Cre17.g741000.t1.2	(1 of 1) K13	Cre17.g741	1	1	1	27.067	244
Cre17.g741200.t1.2	Microtubul	Cre17.g741	4	4	4	30.817	280
Cre17.g741450.t1.2	Chaperonir	Cre17.g741	22	18	18	62.072	581
Cre17.g741850.t1.2	Heterogen	Cre17.g741	13	13	13	31.299	295
Cre17.g742200.t1.1	(1 of 1) PTH	Cre17.g742	4	4	4	48.672	463
Cre17.g742300.t1.1	Glutathion	Cre17.g742	4	4	4	24.779	219
Cre17.g742450.t1.1	(1 of 6) K0(	Cre17.g742	3	3	3	23	205
Cre17.g743847.t1.1	(1 of 2) PF0	Cre17.g743	1	1	1	59.281	560
Cre17.g743897.t1.1	Peroxiredo	Cre17.g743	10	10	10	42.386	387
Cre17.g743947.t1.1	NA	Cre17.g743	1	1	1	156.3	1619
Cre17.g744147.t1.1	(1 of 1) K12	Cre17.g744	4	4	4	240.36	2168
Cre17.g744897.t1.1	(1 of 8) PTH	Cre17.g744	2	2	2	45.66	453
Cre17.g745297.t1.1	NA	Cre17.g745	1	1	1	43.812	410
Cre17.g745697.t1.1	(1 of 3) PTH	Cre17.g745	1	1	1	97.21	925
Cre17.g746047.t1.1	NA	Cre17.g746	2	2	2	405.88	4190
Cre17.g746997.t1.1	Dual functi	Cre17.g746	39	39	39	102.23	954
Cre17.g747247.t1.1	(1 of 3) PTH	Cre17.g747	2	2	2	185.58	1846
Cre18.g749447.t2.1	Bifunctiona	Cre18.g749	18	18	18	99.038	923
Cre18.g749497.t1.1	(1 of 1) K01	Cre18.g749	15	15	15	48.433	461

Cre18.g749847.t2.1	Dihydrolipc	Cre18.g749	20	20	20	52.482	502
Cre18.g749947.t1.1	Flagellar As	Cre18.g749	2	2	2	47.706	442
Cre18.g750047.t1.1	Flagella me	Cre18.g750	37	37	33	447.5	4534
Cre19.g750147.t1.1	NA	Cre19.g750	1	1	1	67.841	708
Cre19.g750547.t4.1	Type-II calc	Cre19.g750	15	15	15	67.314	618
Cre19.g751197.t2.1	(1 of 1) K14	Cre19.g751	7	7	7	148.92	1478
Cre19.g751247.t2.1	(1 of 1) K16	Cre19.g751	2	2	2	22.396	199
Cre24.g755197.t1.1	Putative ru	Cre24.g755	3	3	3	15.475	142
Cre26.g756797.t1.1	(1 of 1) K02	Cre26.g756	2	2	2	26.881	246
Cre36.g759647.t1.1	(1 of 3) 3.1.	Cre36.g759	1	1	1	44.715	427
Cre43.g760497.t1.1	(1 of 1) PTH	Cre43.g760	12	12	12	28.953	271
Cre48.g761147.t1.1	NA	Cre48.g761	1	1	1	13.669	131
Cre48.g761197.t1.1	(1 of 2) K02	Cre48.g761	13	13	13	27.831	259
Cre50.g761397.t1.1	(1 of 1) K07	Cre50.g761	2	2	2	14.631	130

LCMS/MS analysis

Q-value	Score	Intensity 1	Intensity 2	Intensity 3	Intensity 4	Intensity 5	Intensity 6
0	58.172	4.25E+08	4.63E+08	4.93E+08	3.29E+08	7.43E+08	2.09E+09
0	174.9	2.86E+08	2.44E+08	2.04E+08	75354000	3.15E+08	5.12E+08
0	85.401	1.33E+08	2.15E+08	1.52E+08	1.11E+08	1.83E+08	4.19E+08
0	8.0559	28633000	26253000	22346000	5351900	11560000	1.01E+08
0	79.074	2.12E+08	2.89E+08	2.42E+08	1.47E+08	5.36E+08	1.2E+09
0	190.46	1.26E+09	9.5E+08	1.36E+09	8.12E+08	1.45E+09	4.25E+09
0	3.7175	51163000	8667000	0	0	41060000	63317000
0	17.4	4888100	46860000	55199000	10062000	4604000	1.71E+08
0	128.01	9.07E+08	1.28E+09	8.48E+08	2.77E+08	1.75E+09	2.58E+09
0	4.8013	10019000	0	0	0	0	74129000
0.014712	0.22276	0	0	4533100	0	13234000	35793000
0.019298	0.12408	0	0	0	0	0	0
0	1.9531	0	6235300	779410	0	0	9737300
0	255	1.03E+09	8.43E+08	1.05E+09	4.38E+08	1.42E+09	3.25E+09
0.001	1.2468	1.36E+08	1.29E+08	2.7E+08	1.51E+08	1.98E+08	1.63E+08
0	23.488	1.7E+08	1.81E+08	1.2E+08	64978000	3.7E+08	4.18E+08
0	146.62	2.68E+08	4.01E+08	4.06E+08	2.97E+08	9.81E+08	2.23E+09
0	323.31	7.61E+08	2.78E+08	3.58E+08	1.78E+08	1.82E+09	3.44E+09
0	60.139	3.99E+08	3.65E+08	3.99E+08	1.75E+08	9.1E+08	7.52E+08
0	6.6625	0	36002000	56457000	28410000	25077000	1.01E+08
0	176.39	9.01E+08	5.35E+08	4.85E+08	1.78E+08	1.37E+09	2.7E+09
0.036897	-0.15894	0	0	0	0	0	37288000
0	2.6481	15094000	6156300	13059000	8610300	23707000	36350000
0	35.223	0	76471000	76853000	45645000	1.23E+08	3.51E+08
0	68.483	3.78E+08	3.5E+08	2.39E+08	1.72E+08	4.06E+08	7.29E+08
0.009897	0.30097	86891000	13179000	16167000	0	96942000	0
0	55.286	87321000	66914000	19860000	49266000	60954000	3.98E+08
0	100.76	0	72312000	15976000	54338000	2.04E+08	3.63E+08
0	10.736	6029900	29445000	0	24530000	0	71774000
0	4.0829	60367000	40424000	85347000	22817000	1.17E+08	66893000
0	14.31	1.66E+08	1.58E+08	3.43E+08	1.39E+08	1.07E+08	3.2E+08
0	4.8602	0	0	0	0	36370000	35936000
0.0087	0.4631	21078000	14326000	0	0	43429000	95691000
0	6.8811	0	0	0	0	0	47175000
0	323.31	1.01E+10	8.58E+09	7.86E+09	3.27E+09	1.5E+10	3.03E+10
0	155.22	1.73E+09	1.77E+09	1.81E+09	7.31E+08	2.21E+09	3.67E+09
0	6.5261	68493000	31880000	24901000	10506000	1.14E+08	1.84E+08
0	7.8838	0	8666600	0	0	31317000	1.33E+08
0	132.57	3.86E+08	2.98E+08	4.62E+08	1.97E+08	5.88E+08	1.44E+09
0	31.402	13386000	15278000	7408400	5926400	5734600	55714000
0	7.1806	10223000	3617300	6000000	2439400	20466000	51476000
0	39.954	12398000	3560700	11240000	0	8608100	27718000
0	6.1237	6249100	8429700	0	28170000	38418000	1.29E+08
0	93.058	1.06E+09	9.71E+08	1E+09	4.61E+08	1.3E+09	2.82E+09
0	23.478	0	0	0	0	0	0
0	30.031	1.02E+08	1.9E+08	2.61E+08	1.12E+08	2.72E+08	5.27E+08
0	23.834	3.96E+08	5.22E+08	4.84E+08	2.76E+08	7.72E+08	1.7E+09
0.021286	0.060276	45512000	19699000	0	0	53326000	0

0	64.271	1.71E+08	1.29E+08	49134000	23733000	3.86E+08	8.9E+08
0	193.91	1.15E+09	1.98E+09	1.62E+09	7.14E+08	1.97E+09	2.12E+09
0	18.035	40447000	77548000	63531000	3104100	49244000	38495000
0	3.0794	3815500	19660000	28364000	0	0	66872000
0	28.819	2.59E+08	3.08E+08	2.44E+08	1.24E+08	5.72E+08	1.22E+09
0	6.8782	1464000	0	0	0	0	8506600
0	163.43	1.26E+09	1.03E+09	7.73E+08	4.02E+08	1.07E+09	5.28E+09
0.036913	-0.15758	26800000	3294900	11616000	0	30439000	0
0	6.4713	0	24971000	32405000	12508000	0	61956000
0.043657	-0.218	31632000	0	0	0	0	1.4E+08
0	11.998	24632000	20633000	0	17012000	33389000	0
0.00387	0.96831	14888000	0	0	0	23594000	29922000
0	9.0088	1.31E+08	1.08E+08	1.17E+08	53822000	2.22E+08	3.76E+08
0.005226	0.78605	0	0	0	0	0	0
0	102.07	6.69E+08	4.74E+08	4.91E+08	1.96E+08	9.34E+08	1.51E+09
0.004771	0.82275	0	0	25458000	0	0	0
0	212.34	7.3E+08	6.44E+08	6.12E+08	1.72E+08	1.28E+09	2.84E+09
0	5.811	58941000	79850000	67265000	46416000	1.11E+08	1.05E+08
0	116.18	6.38E+08	3.64E+08	3.84E+08	1.33E+08	6.94E+08	2.29E+09
0	17.009	70869000	60870000	51336000	41672000	74868000	2.83E+08
0	1.4864	977810	0	0	4623000	2468500	0
0	22.341	55660000	51978000	18649000	30044000	28057000	2.99E+08
0	29.28	0	25201000	46806000	13131000	9237000	73735000
0	18.069	1612500	17343000	15719000	7074900	28861000	61881000
0	129.81	4.46E+08	3.94E+08	2.83E+08	1.67E+08	5.92E+08	1.97E+09
0.001489	1.195	0	0	0	0	0	32708000
0	8.8298	0	34143000	3283500	25271000	23411000	0
0.025344	-0.01944	3954200	0	0	0	35765000	58213000
0.003855	0.93906	58776000	17375000	42766000	7232700	1.05E+08	2.14E+08
0	2.6228	0	9959000	6195300	22426000	1890100	43615000
0.000505	1.366	73712000	47623000	33318000	29523000	54840000	1.45E+08
0.000511	1.4519	24663000	0	0	0	0	15930000
0	31.809	73359000	2.7E+08	2.56E+08	1.57E+08	6.02E+08	1.32E+09
0	16.953	1.19E+08	75112000	51513000	21605000	1.77E+08	1.63E+08
0	34.111	77732000	1.75E+08	1.56E+08	56831000	2.71E+08	5.18E+08
0	71.274	7.63E+08	5.45E+08	3.99E+08	1.67E+08	1.06E+09	1.68E+09
0	1.9173	0	2116700	3797700	0	12401000	43419000
0	3.1737	950160	0	3714300	0	0	5409100
0.008295	0.49672	0	2123500	0	0	0	0
0	123.46	97354000	1.45E+08	90379000	45684000	3.3E+08	6.76E+08
0	17.708	13379000	22358000	25012000	9290800	90101000	2.59E+08
0	65.155	6150800	10101000	3606000	11033000	34292000	1.4E+08
0.00051	1.4376	0	0	20471000	5595900	0	0
0	6.4492	68159000	44555000	29363000	16130000	83543000	2.03E+08
0.002453	1.086	38445000	0	0	0	56226000	1.42E+08
1	-2	2417000	0	0	0	0	35011000
0	18.318	14122000	62169000	27998000	19928000	21711000	0
0	205.72	6.85E+08	4.65E+08	2.32E+08	1.04E+08	1.31E+09	2.54E+09
0	9.0688	8007500	0	0	0	27832000	26200000
0	41.322	1.84E+08	2.98E+08	3.28E+08	1.36E+08	3.66E+08	9.66E+08

0.023326	0.015264	0	14578000	0	0	34098000	1.7E+08
0	2.7121	21701000	20322000	0	0	69090000	0
0.002458	1.1087	0	0	27346000	0	0	78406000
0	7.9602	14064000	0	0	6193700	9526000	22431000
0	7.9655	6265800	0	615800	0	3459500	28570000
0	1.7253	0	10884000	20829000	5598200	0	0
0	216.19	7.08E+08	8.99E+08	9.72E+08	5.53E+08	1.44E+09	3.03E+09
0	9.2039	1928000	0	0	0	0	10831000
0.026575	-0.02594	27970000	26470000	43500000	16042000	56665000	1.56E+08
0.039452	-0.19448	7814300	2116100	0	0	0	0
0	323.31	1.99E+09	2.24E+09	1.95E+09	1.18E+09	3.06E+09	6.45E+09
0.034483	-0.14378	2.74E+08	1.31E+08	1.18E+08	52108000	1.46E+08	1.91E+08
0.033009	-0.11508	13433000	11073000	0	6008300	37486000	0
0	25.251	80744000	69226000	69409000	32624000	4426200	1.67E+08
0	11.896	9336700	19589000	0	0	59408000	58676000
0	41.322	4.51E+08	5.15E+08	5.52E+08	2.2E+08	9.35E+08	1.37E+09
0	87.078	79201000	64991000	1.3E+08	44217000	1.46E+08	4.57E+08
0	3.5693	66369000	17907000	41607000	8951800	4345200	1.31E+08
0	87.932	5.18E+08	7.13E+08	4.75E+08	2.6E+08	8.56E+08	2.56E+09
0	4.149	0	0	0	0	0	0
0	2.9263	0	0	0	6452800	0	30710000
0	55.052	1.87E+08	2.22E+08	2.77E+08	1.75E+08	4.07E+08	7.33E+08
0.009914	0.32326	0	0	0	0	0	28694000
0.027719	-0.05734	0	0	0	5398300	0	0
0	79.393	5.42E+08	6.45E+08	3.31E+08	2.59E+08	5.44E+08	2.63E+09
0	303.28	1.02E+09	9.27E+08	9.08E+08	5.04E+08	2.22E+09	4.73E+09
0	8.612	17195000	39308000	23507000	31023000	18901000	72010000
0	88.925	9.52E+08	1.18E+09	1.1E+09	4.05E+08	8.52E+08	2.54E+09
0	323.31	1.62E+09	1.37E+09	1.36E+09	4.59E+08	1.95E+09	3.69E+09
0	20.329	8.61E+08	7.41E+08	8.43E+08	4.78E+08	7.03E+08	8.98E+08
0.002449	1.0761	0	14062000	0	0	0	0
0	5.7341	1.66E+08	66777000	43676000	34691000	2.24E+08	0
0	233.41	1.89E+09	1.62E+09	1.96E+09	9.39E+08	2.61E+09	5.05E+09
0	99.414	1.44E+08	1.24E+08	2032700	21680000	97144000	4E+08
0	115.34	48964000	1.62E+08	2.58E+08	1.55E+08	24012000	2.15E+08
0.026935	-0.03352	72913000	29648000	19990000	8184900	1.03E+08	1.85E+08
0	13.268	22391000	0	7695300	0	11451000	49481000
0.004315	0.90245	0	0	2447300	2592000	0	26673000
0	323.31	4.45E+09	3.71E+09	3.74E+09	1.67E+09	6.07E+09	1.25E+10
0	4.0246	67442000	26227000	0	6947500	50599000	39201000
0.014706	0.22218	7990200	30063000	0	9558800	15320000	0
0	11.99	16275000	10122000	9590000	0	29437000	90128000
0	2.0153	0	27094000	31869000	17762000	0	65165000
0	83.837	79638000	1.41E+08	1.8E+08	1.33E+08	1.43E+08	5.15E+08
0	2.7948	21123000	25106000	23725000	0	38019000	96862000
0	50.146	1.11E+09	9.04E+08	8.64E+08	2.62E+08	1.26E+09	1.87E+09
0	6.3894	0	0	0	0	72551000	2.95E+08
0.000508	1.4126	51583000	12226000	14018000	9139500	58053000	1.13E+08
0	3.9968	0	26117000	57686000	0	34934000	49922000
0	19.206	1.94E+08	1.43E+08	1.22E+08	92817000	3.05E+08	9.54E+08

0	27.041	81494000	71372000	32323000	20198000	2.08E+08	5.23E+08
0	35.826	4.5E+08	4.11E+08	2.41E+08	83004000	4.39E+08	1.5E+09
0.002457	1.1062	63372000	24828000	19765000	0	86305000	1.67E+08
0	32.408	1.95E+08	2.9E+08	2.1E+08	49977000	4.62E+08	6.57E+08
0	16.504	16634000	14144000	2073900	4245700	23175000	63667000
0	182.46	8.45E+08	7.82E+08	9.4E+08	4.61E+08	1.43E+09	2.6E+09
0	5.4886	26372000	8692500	0	0	39530000	1.13E+08
0	323.31	2.81E+09	2.27E+09	2.26E+09	1.38E+09	3.1E+09	4.67E+09
0	2.7462	26432000	16439000	14744000	3700900	48389000	6.56E+08
0.044709	-0.22976	0	0	9015400	5575000	22249000	36415000
0	141.68	2.99E+09	2.76E+09	3.07E+09	1.68E+09	3.14E+09	5.38E+09
0	6.8056	83189000	1.66E+08	1.81E+08	1.02E+08	1.27E+08	1.95E+08
0	8.3062	25601000	11674000	7355500	999500	51232000	37344000
0	38.417	1.58E+08	57352000	19382000	3917700	1.59E+08	2.61E+08
0	43.197	1.02E+08	3.73E+08	2.3E+08	1.4E+08	4.64E+08	1.07E+09
0	5.5077	0	0	0	0	0	0
0	21.556	2.29E+08	66415000	19916000	14543000	2.29E+08	4.36E+08
0	5.9179	72595000	1.12E+08	1.36E+08	65173000	2.47E+08	2.37E+08
0	6.7336	14429000	0	0	6595600	0	63246000
0	23.496	4619600	70038000	50948000	34343000	55501000	1.22E+08
0.016372	0.18195	0	0	0	12101000	0	0
0	5.5815	16877000	31326000	45622000	10311000	37594000	0
0	133.36	1.13E+08	1.67E+08	10685000	81047000	2.08E+08	7.74E+08
0.008704	0.46388	31024000	16782000	8942600	0	49495000	0
0	28.501	2.34E+08	2.04E+08	1.79E+08	91767000	2.67E+08	6.45E+08
0.023377	0.026379	0	0	0	7719000	0	0
0.020488	0.078724	0	22858000	27681000	0	0	0
0	41.262	1.65E+08	1.99E+08	1.56E+08	33125000	1.67E+08	3.98E+08
0.016364	0.18194	0	40267000	97127000	45530000	0	0
0	8.5493	43235000	18161000	15812000	9791000	55031000	1.89E+08
0	154.71	5.41E+08	3.56E+08	1.21E+08	42360000	8.37E+08	2.27E+09
0	4.2391	3486200	22864000	0	0	1211700	3636900
0	4.3474	0	7366300	1094100	4014900	0	5264000
0	3.1968	20967000	45903000	26338000	20401000	70194000	1.79E+08
0	108.83	3.37E+08	3.86E+08	1.63E+08	1.64E+08	3.24E+08	1.57E+09
0	20.83	20035000	19233000	24048000	6121300	81563000	1.38E+08
0	5.5959	30619000	17412000	15327000	5055000	37700000	1.03E+08
0	144.93	4.6E+08	4.65E+08	4.18E+08	2.23E+08	9.97E+08	2.08E+09
0	22.177	98360000	77799000	1.18E+08	46393000	1.9E+08	2.99E+08
0	25.771	1.1E+08	63522000	95654000	77407000	1.29E+08	2.5E+08
0	10.485	13389000	17480000	21500000	3157200	9924200	6555500
0	11.191	16415000	38802000	16035000	38204000	0	7006600
0.002464	1.1211	32012000	19462000	0	0	54993000	0
0.003882	0.9975	0	37119000	49556000	36692000	20006000	0
0	13.651	9792500	24378000	0	5632700	14997000	21394000
0	75.89	1.01E+09	9.5E+08	1.39E+09	7.28E+08	1.29E+09	2.14E+09
0	2.2843	0	938050	0	1290200	0	0
0	323.31	1.88E+09	1.6E+09	2.09E+09	1.13E+09	2.81E+09	7.62E+09
0	17.554	58387000	36593000	40402000	29116000	1.08E+08	2.01E+08
0	323.31	1.68E+09	1.78E+09	1.48E+09	7.57E+08	1.8E+09	4.78E+09

0	7.8873	15544000	27523000	22817000	0	28297000	1.23E+08
0	51.325	1.35E+08	92236000	1.27E+08	57327000	1.29E+08	2.12E+08
0	128.14	1.4E+09	1.25E+09	1.19E+09	6.48E+08	1.98E+09	2.78E+09
0	220.35	6.26E+08	4.29E+08	5.92E+08	1.76E+08	5.87E+08	9.42E+08
0	7.8268	7942500	8639400	5219700	3855800	51052000	88342000
0.005223	0.78504	0	10775000	9977300	0	0	0
0	5.425	11391000	9446300	19534000	0	14343000	0
0	7.9664	1.01E+08	1.08E+08	64352000	22191000	1.06E+08	4.54E+08
0	13.341	2.69E+08	1.15E+08	34500000	42149000	4.29E+08	4.09E+08
0.000503	1.3168	13740000	13147000	0	5519700	587850	82533000
0.037932	-0.17756	34011000	46047000	63555000	21734000	0	0
0	25.414	48143000	44660000	69694000	66370000	1.43E+08	1.89E+08
0	11.852	0	20409000	88498000	27995000	0	50960000
0	21.975	0	0	0	0	0	31808000
0	9.9414	6091900	0	0	456730	0	72965000
0	1.738	6615800	0	0	0	2747100	25684000
0.006944	0.57309	0	0	0	0	18456000	31313000
0	8.4758	0	0	0	0	25702000	72246000
0	37.695	59857000	20495000	16144000	19802000	0	1.06E+08
0	167.76	2.56E+08	2.55E+08	1.65E+08	1.07E+08	4.62E+08	1.09E+09
0	4.6064	16656000	24862000	15571000	3887200	84955000	1.03E+08
0	31.173	1.44E+08	83793000	1.42E+08	73691000	1.09E+08	2.6E+08
0	323.31	3.98E+09	3.51E+09	3.04E+09	1.73E+09	5.66E+09	1.12E+10
0	17.746	88212000	38154000	70550000	26516000	1.75E+08	2.1E+08
0	319.5	7.08E+08	7.36E+08	6.84E+08	3.33E+08	1.03E+09	2.3E+09
0	212.33	1.95E+09	1.69E+09	2.19E+09	9.33E+08	2.63E+09	5.5E+09
0.001978	1.1535	0	0	0	0	0	64470000
0	88.991	3.92E+08	5.7E+08	1.44E+08	83897000	4.34E+08	7.55E+08
0	212.08	2.4E+09	2.55E+09	2.46E+09	2.49E+09	2.94E+09	3.27E+09
0.014647	0.20288	0	0	0	0	16932000	23384000
0.000997	1.2172	0	0	0	0	32190000	76648000
0	161.3	2.11E+08	93149000	96421000	78444000	3.71E+08	7.58E+08
0	212.85	1.96E+09	5.86E+09	5.46E+09	3E+09	3.88E+09	8.03E+09
0.006521	0.6181	2219000	15052000	0	0	0	0
0	1.524	68119000	25447000	47898000	13405000	63341000	61574000
0	1.67	0	0	0	15250000	0	62658000
0.048453	-0.25217	0	0	1487300	0	7874700	0
0	41.374	1.3E+08	1.63E+08	1.22E+08	49054000	1.44E+08	3.93E+08
0	16.051	1.37E+08	1.03E+08	0	1277800	1.89E+08	3.05E+08
0.028474	-0.07923	0	0	0	0	0	8799800
0	323.31	9.38E+08	1.04E+09	4.83E+08	3.28E+08	1.4E+09	5.08E+09
0	23.443	61033000	1.28E+08	1.22E+08	1.31E+08	1.8E+08	3.23E+08
0.003884	1.0007	0	0	13636000	9745000	16887000	37615000
0.004302	0.86467	0	0	0	0	0	0
0	2.952	0	0	0	8649500	0	20038000
0	128.69	5.96E+08	5.11E+08	7.16E+08	4.44E+08	1.02E+09	2.53E+09
0	48.885	1.28E+08	91308000	68165000	27365000	2.1E+08	5.75E+08
0	9.0605	70785000	36696000	42903000	14683000	68014000	0
0	28.136	74718000	95582000	75101000	75985000	1.7E+08	2.98E+08
0	12.713	8127500	2450300	0	2958200	6312800	54174000

0.000504	1.3402	0	0	0	0	0	0
0	25.317	49535000	71769000	96851000	37533000	1.35E+08	3.11E+08
0	121.51	1.1E+09	7.35E+08	1.01E+09	4.02E+08	1.84E+09	3.98E+09
0	97.931	1.74E+08	1.71E+08	1.95E+08	56683000	1.66E+08	5.66E+08
0	3.3357	45323000	45629000	32910000	27990000	71066000	76835000
0	315.92	4.04E+09	3.68E+09	3.34E+09	2.32E+09	5.94E+09	8.88E+09
0	2.308	47789000	88316000	48230000	24357000	34553000	3.88E+08
0	10.519	26610000	0	0	12928000	85633000	1.97E+08
0	32.223	1.72E+08	1.03E+08	25822000	15563000	1.7E+08	9.42E+08
0	112.24	1.64E+09	1.4E+09	1.5E+09	7.13E+08	2.09E+09	2.46E+09
0	10.458	26632000	43414000	46023000	27906000	1.17E+08	3.35E+08
0	1.5035	0	57067000	62566000	7622900	0	85584000
0	3.5518	0	9700900	17668000	23826000	37195000	62361000
0	54.758	0	7776200	0	1272000	14080000	14995000
0	29.722	56160000	50461000	60186000	54437000	97819000	1.64E+08
0	203.3	7.88E+08	6.61E+08	5.7E+08	3.14E+08	1.27E+09	2.73E+09
0	87.949	2.16E+08	2.3E+08	1.99E+08	93833000	2.99E+08	7.17E+08
0	14.195	7.57E+08	6.26E+08	7.21E+08	2.69E+08	1.01E+09	1.89E+09
0	23.367	1.62E+08	2.45E+08	1.55E+08	57018000	3.05E+08	1.01E+09
0	55.909	1.4E+08	1.19E+08	1.27E+08	95328000	2.65E+08	5.21E+08
0	2.6984	5436400	25306000	1670200	1383600	13190000	41122000
0.024537	-0.00645	0	0	0	0	0	20858000
0	7.2325	3911000	16692000	9237900	5495900	9828800	92913000
0	2.8984	0	0	18727000	11805000	0	0
0	56.774	5.45E+08	4.45E+08	3.33E+08	78191000	4.16E+08	1.37E+09
0	6.1359	10398000	2896100	2253100	6154700	14508000	6526000
0.029287	-0.0845	0	8954400	4250000	0	8150100	0
0	44.076	1.9E+08	1.74E+08	1.49E+08	69186000	1.67E+08	1.96E+08
0	74.529	1.69E+09	1.42E+09	1.48E+09	4.15E+08	3.59E+09	3.75E+09
0	42.734	74307000	81246000	78979000	89820000	68072000	2E+08
0	15.011	78425000	52172000	1.07E+08	30436000	1.02E+08	1.89E+08
0.008265	0.47438	22130000	27706000	26892000	9921400	35048000	93952000
0	5.9951	31213000	0	5267000	7941600	62941000	2.57E+08
0	6.4017	30435000	11934000	22139000	5803000	32581000	85385000
0	14.713	18890000	41647000	67915000	39992000	57444000	1.75E+08
0	6.7056	34743000	58756000	35508000	8268600	65629000	2.92E+08
0	17.59	1.13E+08	1.1E+08	1.13E+08	1.04E+08	1.2E+08	1.72E+08
0	2.0697	0	0	0	6180700	0	0
0	10.649	0	8953600	3253900	0	8122100	62814000
0.005221	0.77856	0	0	20957000	0	0	29867000
0	9.5763	11908000	24374000	47594000	19065000	1764200	23388000
0	22.386	5.01E+08	2.99E+08	2.18E+08	1.24E+08	5.21E+08	7.71E+08
0.046141	-0.24219	60465000	12971000	14227000	5517700	61557000	12648000
0	1.9159	0	0	0	979180	0	67412000
0	323.31	3.42E+08	5.88E+08	7.09E+08	5.24E+08	6.84E+08	1.51E+09
0	2.0959	0	50843000	44143000	15595000	17379000	0
0	4.0773	34644000	53212000	40886000	0	80947000	2.28E+08
0	197.82	8.33E+08	1.04E+09	8.05E+08	3.15E+08	1.86E+09	4.96E+09
0	7.4879	93414000	1.12E+08	84161000	47051000	2.05E+08	4.69E+08
0	44.398	1.14E+08	1.41E+08	84759000	27020000	1.63E+08	5.4E+08

0.009932	0.33118	0	81320000	74614000	96695000	0	0
0	5.0182	65580000	54760000	24465000	37173000	88551000	1.62E+08
0.044426	-0.22253	18426000	3112900	0	0	8015300	0
0	83.264	1.13E+09	8.86E+08	7.87E+08	5.41E+08	2.78E+09	3.28E+09
0.023367	0.024807	8304200	8840000	0	10054000	24191000	40463000
0	9.1318	66743000	56870000	66301000	33432000	1.29E+08	35513000
0	137.32	1.45E+09	1.58E+09	2.29E+09	9.81E+08	1.9E+09	3.48E+09
0	107.96	2.5E+08	3.89E+08	2.36E+08	1.03E+08	3.08E+08	1.13E+09
0	14.633	19328000	27655000	35655000	29187000	0	68238000
0	98.579	2.38E+09	2.18E+09	2.59E+09	1.9E+09	3.7E+09	5.06E+09
0	7.9945	3126100	0	21155000	10059000	22916000	25088000
0	10.271	532640	0	0	0	0	24606000
0	56.485	59263000	70727000	1.04E+08	27564000	72753000	1.68E+08
0	3.053	0	0	0	0	0	2985700
0	7.6093	0	11287000	19976000	5547300	49617000	73138000
0	114.33	8.36E+08	6.69E+08	6.23E+08	2.23E+08	8.78E+08	1.97E+09
0	33.323	70677000	70079000	1.58E+08	69174000	89580000	4.52E+08
0.000508	1.4081	24809000	14743000	19065000	13862000	75922000	1.9E+08
0	13.075	0	0	0	815600	0	14777000
0	90.189	1.04E+09	6.16E+08	5.78E+08	1.87E+08	1.26E+09	2.53E+09
0	14.146	33843000	26161000	29004000	53839000	39085000	1.86E+08
0	182.8	2.72E+08	2.6E+08	4.03E+08	1.63E+08	4.59E+08	9.98E+08
0	1.9357	66215000	28198000	39552000	15203000	87669000	1.57E+08
0	16.068	2.83E+08	1.1E+08	1.63E+08	83753000	2.94E+08	3.46E+08
0	4.3931	7645200	0	0	0	0	1471200
0	47.871	37917000	88058000	57975000	25975000	76587000	2.8E+08
0	11.13	0	3933800	9769800	0	0	1766900
0.044672	-0.23108	0	0	0	0	0	34871000
0	25.209	1.03E+08	95847000	1.46E+08	51882000	64736000	2.86E+08
0	20.43	2.29E+08	2.16E+08	2.11E+08	1.09E+08	3.49E+08	8.37E+08
0.020524	0.090936	8709400	0	0	0	50471000	83169000
0.027683	-0.06257	7238400	4446800	0	0	5467900	0
0	16.309	8243100	36141000	16450000	30087000	50069000	2.01E+08
0	58.351	2.14E+08	1.05E+08	80376000	43119000	2.08E+08	4.5E+08
0.041874	-0.20335	25522000	0	0	0	44086000	0
0.027695	-0.06195	0	0	0	15155000	10815000	0
0	116.21	2.96E+08	6.77E+08	6.26E+08	5.19E+08	1.37E+09	2.36E+09
0	136.34	42902000	31130000	32363000	34317000	46122000	3.6E+08
0	53.558	36982000	22863000	67289000	40414000	1.42E+08	3.6E+08
0.029299	-0.08403	0	15327000	40580000	6081100	123370	0
0	5.692	0	0	11279000	0	0	0
0.000504	1.3328	9518600	11852000	11797000	0	0	0
0	149.68	8.82E+08	9.18E+08	1.21E+09	6.6E+08	2.18E+09	4.38E+09
0	19.925	887970	14627000	19716000	6924000	16021000	96554000
0.000508	1.4028	0	0	0	0	16688000	33188000
0	7.9296	0	3782500	0	708680	4624500	28303000
0	7.4477	0	0	0	0	0	29625000
0	14.183	65495000	96873000	1.27E+08	63328000	1.33E+08	3.34E+08
0	323.31	3.97E+09	4.8E+09	5.04E+09	3.38E+09	5.35E+09	1.39E+10
0.005213	0.76721	0	0	0	1565300	0	2676300

0	132.89	1.13E+09	8.93E+08	8.3E+08	3.11E+08	1.33E+09	3.12E+09
0	6.485	4288300	56174000	70705000	31949000	0	0
0	4.0957	0	0	1315600	0	0	6063200
0	15.379	85718000	0	15363000	7877600	56827000	1.78E+08
0	195.73	4.92E+09	4.46E+09	4.59E+09	2.15E+09	5.26E+09	8.93E+09
0	3.1448	13301000	8623200	0	5661800	19539000	44600000
0	23.628	1.03E+08	1.43E+08	58725000	80616000	51495000	3.1E+08
0	1.9554	13278000	6919600	26671000	7467000	41458000	43663000
0	29.4	3.15E+08	84307000	12139000	0	4.07E+08	3.71E+08
0	29.563	1.02E+08	70962000	65012000	51684000	86279000	2.36E+08
0	2.0468	1.5E+08	2.26E+08	2.11E+08	99865000	35327000	3.9E+08
0.005634	0.70749	0	2907800	0	1901500	4693100	0
0	68.448	8.27E+08	5.94E+08	5.93E+08	2.96E+08	2.02E+09	2.79E+09
0.014654	0.20348	66615000	45397000	1.36E+08	213320	1.42E+09	20514000
0	22.171	1.68E+09	7.12E+08	4.75E+08	4.28E+08	3.84E+09	4.75E+09
0.006069	0.65466	3909000	28280000	41931000	9684600	58070000	1.16E+08
0.045864	-0.23329	1.1E+08	1.05E+08	1.73E+08	28053000	65313000	2.32E+08
0	7.3588	76239000	84057000	1.46E+08	40320000	59625000	3.11E+08
0	178.24	7.44E+08	6.45E+08	9.36E+08	4.49E+08	8.7E+08	2.93E+09
0.009137	0.43191	13598000	0	0	19030000	0	0
0.041822	-0.20622	0	0	0	0	0	0
0	6.5297	0	51920000	61761000	25017000	79620000	1.12E+08
0	69.364	4.57E+08	2.36E+08	1.88E+08	1.01E+08	4.04E+08	6.27E+08
0	38.084	17256000	11915000	0	8292100	22618000	35564000
0	49.832	5.15E+08	6.1E+08	3.31E+08	2.76E+08	6.28E+08	2.21E+09
0	5.7875	13104000	16117000	22756000	3568700	0	0
0	15.089	10050000	4079600	3153700	0	26443000	1.6E+08
0.010777	0.27537	57824000	46128000	48615000	20558000	38194000	77517000
0	35.371	13214000	29210000	21446000	27336000	1.08E+08	3.29E+08
0	13.403	1.04E+08	2.68E+08	20791000	1.5E+08	1.08E+08	1.09E+09
0	7.0974	19832000	32263000	12551000	0	52960000	85831000
0	18.804	0	52315000	60167000	16514000	37060000	93401000
0	111.99	1.65E+09	7.25E+08	6.44E+08	2.5E+08	2.92E+09	7.32E+09
0	178.93	6.18E+08	5.86E+08	4.41E+08	3.35E+08	1.19E+09	3.61E+09
0	118.44	9.66E+08	6.68E+08	4.89E+08	2.51E+08	8.69E+08	2.19E+09
0	7.3618	87704000	1.21E+08	1.16E+08	50792000	110710	62272000
0.005203	0.75896	14105000	0	0	0	32007000	47679000
0	34.443	2.11E+08	86955000	65573000	20998000	2.86E+08	8.29E+08
0	8.1008	38580000	43294000	0	0	1.1E+08	1.25E+08
0	3.718	0	48698000	96809000	35670000	59020000	1.88E+08
0.034192	-0.12567	0	0	15282000	7207200	24770000	42097000
0.008291	0.49622	23452000	44508000	38748000	35975000	52419000	86834000
0.002445	1.0673	11160000	0	4072600	0	0	0
0.002459	1.1107	35706000	0	68444000	46035000	0	55369000
0	38.463	1.66E+08	2.62E+08	2.45E+08	82740000	3.26E+08	7.14E+08
0.0253	-0.02222	0	0	0	0	0	0
0	35.34	9720400	13765000	9498000	6575100	0	22133000
0	1.9093	0	13814000	23487000	11039000	53787000	64036000
0	1.7937	0	0	0	0	5476100	29053000
0	46.139	69643000	40331000	30561000	27914000	1.02E+08	2.85E+08

0	215.37	7.6E+08	5.91E+08	4.24E+08	2.38E+08	8E+08	3.76E+09
0	4.2514	63819000	29583000	0	15157000	85486000	1.97E+08
0.002452	1.0853	2.18E+08	1.37E+08	15686000	0	0	0
0	78.221	4.33E+08	4.32E+08	4.13E+08	2.23E+08	5.14E+08	1.39E+09
0	3.1275	68879000	63544000	0	0	1E+08	1.53E+08
0.003869	0.96749	0	0	0	0	0	0
0.018445	0.1356	53095000	20248000	45388000	12388000	37034000	35469000
0	15.407	6816600	28604000	16900000	19890000	57715000	1.77E+08
0	123.23	4.47E+08	4.86E+08	2.8E+08	90491000	7.56E+08	2.11E+09
0	4.7018	1.25E+08	1.06E+08	1.03E+08	46886000	2.68E+08	3.29E+08
0	15.003	10121000	42252000	15498000	3196000	7127900	10168000
0	7.1653	0	0	20219000	1658200	0	84512000
0.000999	1.2462	21051000	10549000	0	6609600	17310000	0
0	13.246	18593000	52732000	90338000	12473000	50616000	1.31E+08
0	18.957	683300	0	0	0	665230	36292000
0.003889	1.0074	10678000	9255700	0	0	6913200	0
0	17.507	12994000	49221000	42583000	17281000	39292000	1.94E+08
0.020114	0.098796	0	0	0	0	0	0
0	80.43	2.98E+08	3.33E+08	2.28E+08	66984000	4.17E+08	1.35E+09
0	58.005	1.88E+08	1.23E+08	1.34E+08	67545000	4.42E+08	9.58E+08
0	93.978	3.11E+08	1.95E+08	2.5E+08	64097000	5.32E+08	8.36E+08
0.023316	0.01009	0	0	30681000	0	46801000	0
0	40.16	3.34E+08	2.36E+08	4.16E+08	1.67E+08	4.76E+08	4.78E+08
0	54.581	2.52E+08	1.17E+08	66536000	76751000	1.43E+08	1.07E+09
0	287.49	7.76E+08	7.51E+08	5.64E+08	4.18E+08	1.29E+09	3.02E+09
0	35.715	2.5E+08	2.29E+08	2.59E+08	2.04E+08	5.28E+08	8.45E+08
0.028486	-0.07693	13207000	11097000	3588700	15581000	33867000	49329000
0.006092	0.68966	11319000	10220000	0	0	0	45093000
0	49.107	91408000	55084000	37715000	37756000	72887000	1.77E+08
0	7.5534	48909000	24461000	0	4915400	27723000	1.3E+08
0	209.7	2.31E+08	2.69E+08	2.91E+08	1.63E+08	4.43E+08	1.24E+09
0	63.558	2.99E+08	1.2E+08	54566000	83890000	2.31E+08	7.33E+08
0	7.2478	13441000	78772000	0	0	27522000	1.99E+08
0	2.0188	34843000	29660000	0	8621600	45853000	66639000
0	66.436	1.31E+08	3.16E+08	1.34E+08	2.12E+08	1.65E+08	2.52E+08
0.001493	1.1996	0	0	0	0	14046000	0
0	17.245	82547000	1.27E+08	1.64E+08	89703000	2.86E+08	3.06E+08
0.006518	0.61799	20528000	11156000	0	9861400	0	0
0	4.9535	12810000	7001400	3946900	3358300	12752000	42917000
0.009905	0.30687	0	12217000	15677000	6998500	0	49274000
0	4.5864	4352300	13613000	0	11981000	5305300	51334000
0.008688	0.4404	34490000	0	0	0	0	1.11E+08
0.010772	0.27454	0	16132000	0	0	12462000	17748000
0	2.0595	0	0	0	0	12598000	0
0	119.69	78848000	2.07E+08	2.43E+08	1.71E+08	1.7E+08	7.3E+08
0.001491	1.1983	0	0	20185000	5166300	0	51176000
0	9.1147	13347000	3906200	5191700	0	4968600	3448100
0	29.862	78204000	86807000	1.17E+08	39342000	2.27E+08	5.31E+08
0	55.758	3.86E+08	2.93E+08	2.11E+08	1.47E+08	4.79E+08	7.41E+08
0	122.76	2.62E+08	8.71E+08	2.64E+08	1.35E+08	2.71E+08	8.62E+08

0	39.85	32044000	71760000	2845400	16125000	1.23E+08	2.44E+08
0.005639	0.71338	46398000	76784000	85147000	59677000	56313000	1.3E+08
1	-2	19112000	0	0	0	39851000	39833000
0	323.31	1.81E+09	1.82E+09	2.31E+09	1E+09	2.98E+09	7.45E+09
0	40.785	1.72E+08	1.66E+08	1.4E+08	72653000	4.31E+08	7.63E+08
0	78.195	1.26E+08	80385000	65357000	32243000	1.42E+08	3.83E+08
0	238.27	3.43E+09	3.02E+09	3.58E+09	1.73E+09	3.89E+09	1.11E+10
0	4.4908	0	0	0	8286500	25625000	59055000
0	323.31	4.76E+08	4.05E+08	6.2E+08	4.75E+08	8E+08	1.92E+09
0.009923	0.32695	0	0	13871000	5972300	0	0
0	3.8437	0	3934100	3140900	453560	3895800	0
0	3.2898	33014000	0	0	0	19679000	5484700
0.000998	1.2332	18287000	0	0	6756300	26288000	0
0	29.632	2075900	1155400	5269800	490870	7128500	51262000
0	25.485	5.04E+08	4.41E+08	4.98E+08	2.45E+08	9.79E+08	2.2E+09
0.005199	0.75405	6375100	2733800	2021300	2290800	6834800	0
0.01929	0.12289	0	0	0	76242000	15693000	24000000
0.006083	0.67359	91747000	90304000	90012000	37713000	93500000	0
0	6.3034	72198000	78135000	76682000	24327000	1E+08	2.13E+08
0	8.6609	38003000	10965000	0	5965900	9013300	2.28E+08
0.00991	0.31202	31005000	21066000	37961000	17449000	0	88138000
0	4.5001	0	5389600	0	0	11303000	15365000
0	245.7	2.12E+09	1.61E+09	1.86E+09	7.47E+08	2.74E+09	6.06E+09
0	24.601	7075300	21786000	3162700	4921800	15865000	1.4E+08
0	4.2019	0	31839000	24294000	0	0	67413000
0.03827	-0.18453	0	0	0	0	2905800	20252000
0.002927	1.0395	0	0	0	0	0	10216000
0	61.079	3.12E+08	1.64E+08	1.64E+08	52460000	5.66E+08	1.42E+09
0	1.6687	22919000	23523000	17072000	7216300	29370000	88641000
0	3.2069	1.14E+08	49884000	41607000	28563000	2.36E+08	4.46E+08
0.009537	0.38201	0	0	0	0	0	0
0	25.878	2.7E+08	3.6E+08	3.98E+08	2.2E+08	4.96E+08	1.09E+09
0	3.1665	21485000	14701000	0	32187000	22543000	0
0	8.4309	6036800	30150000	14068000	30670000	40817000	2.37E+08
0.000506	1.369	0	0	0	0	5954300	1794200
0.04878	-0.25642	17278000	0	0	41389000	0	1.11E+08
0	20.904	40524000	17565000	18340000	16276000	30646000	1.06E+08
0.005652	0.72914	42086000	63719000	42896000	17001000	40913000	0
0	13.354	9915000	11176000	0	0	41515000	1.13E+08
0	8.2059	629900	0	580830	0	0	12898000
0.00828	0.48495	0	30727000	27121000	0	50035000	1.22E+08
0	11.86	1.8E+08	99319000	53629000	9317400	1.45E+08	2.04E+08
0	29.353	2.15E+08	2.21E+08	1.31E+08	1.43E+08	4.36E+08	1.11E+09
0.019315	0.12826	1.45E+08	1.42E+08	80296000	29206000	2.31E+08	30671000
0	29.746	32085000	36144000	9606400	0	55646000	1.84E+08
0.006515	0.61141	12160000	0	0	0	20152000	42630000
0	20.135	1.58E+08	1.74E+08	2.77E+08	1.46E+08	2.04E+08	4.34E+08
0	42.783	60974000	1.62E+08	40887000	34057000	2.17E+08	4.67E+08
0	107.4	1.24E+08	1.09E+08	1.49E+08	86238000	2.29E+08	6.55E+08
0	4.3946	0	11197000	13299000	4878900	0	30322000

0	76.136	2.28E+08	2.1E+08	1.74E+08	1.24E+08	3.48E+08	5.94E+08
0.014279	0.2275	0	0	2394800	3933600	8189400	4759500
0.014719	0.22318	209400	25044000	17906000	8132500	26524000	42507000
0	323.31	2.34E+09	1.56E+09	9.52E+08	5.36E+08	3.06E+09	9.9E+09
0	19.139	92340000	1.26E+08	1.1E+08	70967000	2.07E+08	2.24E+08
0	7.0149	31870000	22451000	17932000	0	37676000	1.97E+08
0	2.4052	0	0	0	0	0	0
0	1.4696	0	0	0	0	0	21182000
0.009524	0.37743	0	0	0	0	0	0
0.02253	0.043898	0	0	0	0	0	0
0	43.136	43082000	1.19E+08	1.21E+08	20697000	1.41E+08	3.23E+08
0	30.307	3.98E+08	2.98E+08	3.75E+08	2.19E+08	4.8E+08	7.49E+08
0	2.1227	21188000	22270000	0	1451800	31035000	93804000
0.004325	0.91856	0	37349000	34479000	0	0	31671000
0.027742	-0.05268	0	0	18593000	0	0	0
0	46.275	22238000	9075900	0	0	0	8421000
0	10.024	49009000	1.41E+08	3.08E+08	1.84E+08	2.6E+08	4.3E+08
0	10.096	2.16E+08	1.06E+08	87284000	1.23E+08	4.56E+08	5.68E+08
0	1.5558	7020400	0	0	0	13430000	54142000
0	37.409	42117000	26610000	45426000	31717000	50322000	2.2E+08
0	4.8727	0	12113000	10676000	5503700	4793100	27349000
0	323.31	7E+09	6.42E+09	5.99E+09	3.48E+09	8.91E+09	2.03E+10
0	8.7267	27852000	2785200	2070000	0	6458200	44926000
0	189.49	1.19E+08	54008000	42766000	32441000	3.3E+08	4.06E+08
0	24.663	26523000	60606000	27787000	23910000	0	65218000
0	2.2841	0	0	12348000	9920900	0	34446000
0	44.014	3.4E+08	2.34E+08	2.08E+08	1.24E+08	3.93E+08	9.1E+08
0	20.338	1.12E+08	1.44E+08	1.67E+08	1.05E+08	1.79E+08	3.03E+08
0	23.696	91427000	66655000	59262000	51313000	1.34E+08	4.25E+08
0	55.737	1.3E+08	3.67E+08	4.24E+08	2.15E+08	5.67E+08	1.3E+09
0	22.13	3.21E+08	1.57E+08	2.71E+08	1.18E+08	2.5E+08	8.44E+08
0	4.2188	19071000	0	0	10537000	3795000	28846000
0	297.47	1.31E+10	1.1E+10	1.57E+10	9.44E+09	1.68E+10	2.63E+10
0	19.994	0	21778000	10663000	557780	71908000	1.26E+08
0.000507	1.3897	0	0	0	10023000	0	0
0.008318	0.54684	0	0	0	0	57955000	1.26E+08
0.023276	0.003881	0	8338400	8590200	0	17607000	19781000
0.009128	0.4286	0	19570000	20145000	8541300	0	0
0	23.162	20597000	48662000	7069300	33841000	53373000	1.27E+08
0.009928	0.32861	11670000	9913200	7050000	2881700	9036400	0
0	12.354	32171000	0	9315700	0	30207000	11926000
0.006098	0.69346	20058000	7457700	9207200	4908000	20252000	0
0	81.329	76888000	92732000	89582000	18365000	1.43E+08	6.78E+08
0.033812	-0.12216	6161900	10702000	0	0	0	0
0	3.7805	5095000	13852000	0	0	0	31117000
0	139.06	6.29E+09	4.42E+09	3.18E+09	1.29E+09	6.58E+09	1.54E+10
0	5.6874	0	0	0	0	3086500	20482000
0	11.816	14822000	52425000	29170000	17397000	67117000	1.37E+08
1	-2	3521000	0	0	6407300	19464000	0
0	10.666	0	0	695640	1026900	0	9213200

0	207.6	4.24E+08	8.28E+08	6.03E+08	3.17E+08	1.51E+09	3.36E+09
0.037547	-0.1734	5522100	12904000	12236000	1254500	0	0
0.006089	0.68593	88546000	8435000	15401000	0	87676000	0
0	174.01	1.61E+09	9.9E+08	9.41E+08	4.34E+08	2.75E+09	3.15E+09
0	4.1618	0	0	0	0	35404000	94995000
0	18.919	48092000	97405000	1.02E+08	32778000	98139000	2.08E+08
0.045808	-0.23829	0	0	19471000	8621800	0	0
0	50.767	17132000	20447000	2309800	9093000	12862000	93672000
0	1.9646	0	0	22801000	0	3258100	9826400
0	26.704	5.15E+08	2.73E+08	2.43E+08	1.69E+08	5.85E+08	1.41E+09
0	2.3896	0	22513000	19320000	0	33877000	59300000
0	13.651	7557200	48523000	25083000	0	49047000	99730000
0	323.31	3.91E+09	2.88E+09	3.41E+09	2.18E+09	5.52E+09	9.78E+09
0	20.611	1.11E+08	1.09E+08	1.49E+08	76068000	2.19E+08	4.86E+08
0	31.508	1.43E+08	1.77E+08	2.17E+08	80440000	3E+08	5.03E+08
0	22.013	2.14E+08	1.5E+08	85987000	23104000	2.93E+08	6.64E+08
0.008716	0.46854	0	0	0	3731200	30948000	0
0	323.31	8.88E+09	8.12E+09	7.35E+09	3.42E+09	1.25E+10	2.55E+10
0	59.325	1.24E+09	1.12E+09	1.27E+09	6.28E+08	2E+09	3.55E+09
0.020879	0.065446	0	0	0	0	0	0
0	4.7345	20709000	16730000	16377000	0	33741000	0
0	257.33	1.37E+09	8.08E+08	6.53E+08	2.39E+08	1.88E+09	3.7E+09
0	78.602	7.17E+08	5.36E+08	2.92E+08	91520000	1.21E+09	1.56E+09
0	18.668	88220000	99139000	1.44E+08	38566000	2.05E+08	3.11E+08
0	87.875	1.87E+08	69870000	56535000	18425000	3.96E+08	8.74E+08
0	75.426	3.13E+08	1.95E+08	1.16E+08	31988000	4.63E+08	7.62E+08
0	16.663	46601000	39844000	37515000	25464000	62232000	1.15E+08
0	24.055	33988000	8209700	13256000	50693000	33753000	83849000
0	12.656	1.3E+08	1.19E+08	1.4E+08	56508000	2.64E+08	4.79E+08
0	323.31	4.66E+09	3.77E+09	3.33E+09	1.81E+09	7.22E+09	1.65E+10
0.04294	-0.21237	44991000	49340000	32534000	23174000	49956000	0
0	32.848	9948100	24867000	34029000	16608000	20272000	58164000
0	1.473	995060	1797600	0	1547600	0	0
0.005208	0.76198	0	0	0	0	0	44294000
0	79.867	3.23E+08	1.98E+08	3.08E+08	1.57E+08	8.03E+08	8.43E+08
0	96.795	1.92E+08	1.66E+08	1.56E+08	51043000	3.57E+08	6.96E+08
0	306.01	1.86E+09	1.25E+09	1.87E+09	1.08E+09	2.57E+09	5.8E+09
0	33.89	50339000	94600000	99637000	65316000	1.37E+08	3.97E+08
0	66.074	2.38E+08	3.58E+08	2.37E+08	1.68E+08	4.95E+08	1.19E+09
0.037625	-0.17063	0	0	0	0	0	15171000
0	48.442	78446000	1.74E+08	98535000	1.21E+08	7389300	3.21E+08
0.005236	0.80518	77007000	65405000	62641000	26026000	1.07E+08	1.77E+08
0	15.803	5.92E+08	1.47E+09	1.11E+09	47024000	1.34E+08	2.02E+09
0	5.6286	0	30383000	42119000	26470000	66049000	1.34E+08
0	103.99	2.79E+08	1.83E+08	1.48E+08	62555000	4.24E+08	4.63E+08
0	4.0446	0	1055900	0	0	0	53540000
0	55.807	6.54E+08	6.34E+08	7.32E+08	3.88E+08	1.02E+09	2.13E+09
0	1.629	0	0	0	0	0	0
0	1.8991	29694000	19976000	26156000	0	22933000	1.35E+08
0.009937	0.33438	3250900	0	0	0	0	0

0.002925	1.0376	3E+08	1.81E+08	1.12E+08	64442000	4.35E+08	1.04E+09
0.001981	1.1662	0	33132000	0	18899000	0	0
0	60.745	29778000	88360000	1.23E+08	25651000	91090000	1.21E+08
0	15.86	60390000	57658000	56632000	7631500	79307000	2.61E+08
0.023306	0.009383	0	0	0	0	0	50893000
0.031766	-0.0997	0	0	0	0	0	0
0.026958	-0.03124	41632000	0	15288000	4900100	30931000	0
0	15.046	3.12E+08	2.43E+08	2.95E+08	1.64E+08	5.38E+08	4.46E+08
0	65.724	3.04E+08	1.46E+08	2.54E+08	1.41E+08	1.15E+08	8.1E+08
0	4.6302	0	30564000	30482000	29245000	42683000	71878000
0	192.3	6.72E+08	4.54E+08	2.68E+08	2.36E+08	9.25E+08	1.86E+09
0	323.31	1.36E+10	1.21E+10	9.87E+09	5.01E+09	1.78E+10	2.8E+10
0	22.059	1.2E+08	1.06E+08	65448000	62791000	77064000	2.35E+08
0	77.757	3.94E+08	3.27E+08	2.77E+08	1.83E+08	6.56E+08	1.01E+09
0.034134	-0.13409	0	0	0	11589000	0	0
0.000512	1.4544	22260000	0	0	0	0	32007000
0	2.3485	2082800	3403200	3044600	2204200	0	24868000
0.008299	0.52171	0	0	0	0	0	0
0	2.7611	29775000	10837000	13611000	8346400	18113000	0
0	2.2108	0	0	0	0	10457000	71467000
0	236.67	2.13E+09	1.93E+09	1.79E+09	1E+09	3.9E+09	6.92E+09
0	2.1899	0	0	0	0	0	8116800
0	3.5213	26001000	5071800	0	6465900	32408000	1.05E+08
0.006072	0.65616	0	0	0	0	0	0
0.00912	0.42159	17331000	37452000	24964000	15346000	11096000	69120000
0	3.0402	72003000	0	0	0	64597000	2.4E+08
0	3.5944	11385000	12933000	13636000	0	25747000	38464000
0	2.2754	0	7335300	13499000	0	0	89817000
0.034497	-0.14294	26483000	22084000	0	0	2854500	53953000
0	5.6329	0	0	0	0	40986000	54766000
0	14.161	60714000	51077000	43724000	14346000	69030000	1.27E+08
0	113.12	2.92E+08	6.09E+08	2.88E+08	1.05E+08	3.64E+08	3.46E+09
0	46.579	7.32E+08	4.64E+08	5.93E+08	3E+08	6.74E+08	7.6E+08
0	4.232	17277000	0	0	0	0	28996000
0.021258	0.05617	35775000	0	0	4523800	22710000	0
0	5.5454	31425000	43524000	50111000	21850000	72632000	2.33E+08
0	2.134	23183000	8998600	0	0	44334000	0
0	4.0476	10974000	2917700	0	0	3136600	14393000
0	91.407	5.4E+08	3.89E+08	2.49E+08	3.32E+08	1.99E+08	1.26E+09
0	135.54	2.64E+08	3.15E+08	3.44E+08	1.81E+08	3.04E+08	1.05E+09
0	8.7961	3590000	4109500	0	0	40688000	1.54E+08
0	21.9	1.36E+08	1.37E+08	1.12E+08	88380000	3.02E+08	7.89E+08
0	323.31	1.01E+09	5.78E+08	5.89E+08	4.5E+08	1.78E+09	3.04E+09
0	4.4163	0	0	0	0	25797000	1.15E+08
0.014641	0.2015	2.18E+08	0	0	78636000	0	0
0	17.933	1.05E+08	1.06E+08	58775000	33152000	1.15E+08	1.61E+08
0	43.196	57263000	63285000	1.11E+08	37945000	1.1E+08	1.95E+08
0	46.574	31834000	93238000	79143000	48759000	1.77E+08	4.37E+08
0	4.9014	10330000	5732000	0	0	8766700	60848000
0	9.9716	0	0	0	1422200	28650000	78645000

0	30.276	40575000	55375000	54931000	25003000	49915000	2.78E+08
0	116.17	2.07E+08	2.28E+08	1.26E+08	79529000	3.64E+08	1.1E+09
0	11.891	36268000	51538000	47873000	10918000	1.21E+08	2.83E+08
0	16.296	2.38E+08	1.55E+08	96280000	8004300	1.43E+08	4.81E+08
0	7.0739	24201000	0	60770000	0	0	73327000
0	3.8972	0	1.33E+08	1.7E+08	95083000	1.67E+08	2.54E+08
0	10.948	0	37277000	5641400	20196000	14996000	58117000
0.006075	0.66495	50387000	6994200	9504400	0	19241000	69293000
0	23.261	2.57E+08	2.13E+08	2.35E+08	92396000	3.5E+08	4.92E+08
0	4.3221	25057000	40661000	34665000	0	85057000	1.63E+08
0	195.42	2.99E+08	3.28E+08	1.64E+08	1.08E+08	3.64E+08	1.39E+09
0	2.9574	0	6682200	17981000	6141900	0	0
0	1.8087	0	0	0	0	35709000	48696000
0	26.839	1.3E+08	2.11E+08	64612000	1.57E+08	1.08E+08	7.26E+08
0.016379	0.18237	0	0	0	0	22128000	46568000
0	13.327	0	9010100	1600400	3542800	5516600	39157000
0	11.206	0	54596000	78050000	39591000	33154000	1.07E+08
0	10.012	1.99E+08	2.26E+08	2.2E+08	90545000	5.19E+08	1.06E+09
0	29.909	1371000	36013000	0	4913400	0	98587000
0	11.41	499440	8522600	1444000	14021000	0	31183000
0.014673	0.21224	0	12550000	8516400	0	0	0
0.04258	-0.20914	15904000	0	16264000	7503900	0	64226000
0	323.31	2.37E+09	2.31E+09	2.13E+09	9.64E+08	4.43E+09	9.82E+09
0	15.138	50952000	24109000	1.1E+08	68084000	1.35E+08	2.61E+08
0	323.31	3.79E+09	4.49E+09	4.78E+09	2.45E+09	8.09E+09	1.89E+10
0.036944	-0.15495	3.25E+08	24841000	24805000	12156000	1.55E+08	4.74E+08
0	19.418	66412000	61130000	56941000	17885000	1.1E+08	1.46E+08
0	24.774	2.27E+08	67906000	44142000	47146000	3.88E+08	7.95E+08
0	9.1955	6778700	5561800	0	0	0	31199000
0	5.1903	0	25345000	24647000	7775700	18312000	1.27E+08
0	22.254	14803000	2271800	0	3038700	11336000	65968000
0	9.2781	13733000	11654000	2387600	0	15519000	37659000
0	4.3289	0	0	0	0	5770500	19347000
0	323.31	1.57E+09	2.6E+09	1.91E+09	1.64E+09	2.94E+09	6.84E+09
0.008268	0.47509	0	0	2207600	2776600	0	21208000
0	35.753	94652000	78386000	65738000	37779000	1.28E+08	2.88E+08
0	12.015	30245000	47352000	34059000	0	48647000	2.9E+08
0	16.69	1018700	0	0	0	13896000	33623000
0	323.31	2.13E+09	1.99E+09	2.05E+09	1.06E+09	3.25E+09	7.4E+09
0	16.975	1.7E+09	4.42E+09	4.66E+09	1.91E+09	2.58E+09	4.06E+09
0	31.823	0	21765000	42203000	32549000	96577000	1.79E+08
0	88.743	2.15E+08	2.61E+08	1.47E+08	85395000	4.84E+08	1.37E+09
0.004329	0.93022	0	0	0	0	0	53160000
0.024558	-0.00302	0	10023000	0	0	0	0
0	170.89	2.57E+09	2.52E+09	3.36E+09	1.52E+09	4.69E+09	8.5E+09
0	5.378	0	0	0	0	0	48951000
0	14.402	5366600	1155100	491850	0	5010400	5.2E+08
0	14.611	7237600	52701000	29391000	28904000	54862000	2.17E+08
0	323.31	1.61E+09	1.12E+09	1.28E+09	6.12E+08	2.31E+09	5.49E+09
0	159.46	6.92E+08	5.86E+08	7.44E+08	4.87E+08	8.14E+08	1.77E+09

0	116.58	1.33E+08	79639000	31025000	53903000	1.18E+08	4.21E+08
0	3.3788	0	0	7009200	1740700	4145400	18325000
0	323.31	2.06E+10	1.26E+10	1.12E+10	6.05E+09	2.54E+10	3.55E+10
0	9.3	5.04E+08	5.11E+08	3.11E+08	1.59E+08	7.63E+08	6.64E+08
0	40.97	57540000	90513000	79133000	57329000	61987000	4.38E+08
0	25.021	1.87E+08	51715000	21041000	22045000	2.38E+08	5.95E+08
0	16.711	0	32151000	31496000	36137000	44046000	1.53E+08
0.006506	0.60483	0	2320200	2826200	1490200	0	19121000
0	2.1318	0	0	0	0	18157000	0
0	2.4596	0	1676300	4460500	0	57774000	0
0.042922	-0.21285	0	0	0	0	0	20599000
0.013399	0.23518	1.31E+08	14597000	1.75E+08	13030000	28891000	1.24E+08
0	1.728	0	0	17268000	0	18378000	41965000
0	209.62	4.98E+08	2.97E+08	1.69E+08	97367000	6.33E+08	1.17E+09
0	129.63	7.48E+08	1.01E+09	6.3E+08	3.18E+08	1.04E+09	2.73E+09
0.005216	0.77009	4819500	0	0	15589000	0	0
0.004773	0.82669	0	18397000	34390000	25347000	0	0
0	321.29	6.22E+09	3.32E+09	2.57E+09	1.55E+09	6.87E+09	1.4E+10
0	4.8353	1.22E+08	1.07E+08	1.2E+08	45298000	1.57E+08	2.83E+08
0.006948	0.57818	0	6132600	5278900	1739200	0	11642000
0	4.438	47067000	1.81E+08	2.78E+08	1.66E+08	54053000	52445000
0	18.27	29179000	41061000	1.05E+08	39399000	1.08E+08	75460000
0	7.8391	0	28322000	53408000	20107000	28863000	59573000
0	4.9083	19661000	0	0	0	0	66133000
0	4.3526	5023400	0	2827700	3021300	6934300	1.01E+08
0	6.3293	17666000	21279000	17984000	0	51957000	1E+08
0.000503	1.3309	10723000	24896000	25663000	8395300	25055000	0
0	11.503	1382600	0	8358500	14567000	0	0
0.009946	0.33862	0	0	0	0	0	79101000
0	42.975	44381000	38828000	52811000	26099000	1.07E+08	1.56E+08
0	105.51	1.59E+09	1.25E+09	1.28E+09	5.79E+08	1.79E+09	4.01E+09
0	14.947	59053000	51371000	53806000	31470000	1.87E+08	3.41E+08
0	58.067	1.49E+08	2.2E+08	2.28E+08	1.08E+08	1.97E+08	8.1E+08
0	9.2133	4160800	30332000	5834900	7971100	0	0
0	46.278	6.39E+08	5.7E+08	5.81E+08	1.94E+08	5.55E+08	1.84E+09
0	15.306	67139000	54024000	42058000	21003000	1.4E+08	2.77E+08
0	22.739	9074800	34915000	23399000	19057000	1.12E+08	17607000
0	23.08	16978000	3770700	5176300	16680000	1.07E+08	1.4E+08
0	19.732	2.42E+08	3.87E+08	4.67E+08	3.77E+08	7.8E+08	1.27E+09
0	62.994	35780000	65224000	42457000	24607000	96828000	1.46E+08
0	1.5314	0	10741000	0	0	18656000	57680000
0	100.92	3.04E+09	2.44E+09	2.66E+09	1.45E+09	3.66E+09	8E+09
0	42.326	20350000	31507000	63812000	4779800	82353000	2.83E+08
0	2.3336	24666000	8727500	9691100	0	31027000	0
0	82.761	1.27E+08	1.77E+08	1.52E+08	1.12E+08	2.57E+08	7.35E+08
0	172.75	7.36E+08	5.75E+08	6.39E+08	3.69E+08	1.09E+09	2.1E+09
0	59.95	82268000	1.25E+08	1.51E+08	79561000	1.38E+08	6.6E+08
0	10.098	0	0	0	0	0	5392300
0	19.427	1.07E+08	1.02E+08	1.24E+08	42739000	2.68E+08	8.15E+08
0	31.763	6296500	33064000	46373000	64766000	57260000	74153000

0.005642	0.71883	23912000	18594000	17741000	9887200	30951000	53788000
0	21.846	22718000	30957000	78709000	27160000	4417300	1.15E+08
0	56.036	1.26E+08	2.98E+08	2.17E+08	1.28E+08	4.21E+08	1.17E+09
0	1.7165	2186500	4366100	1441500	0	16045000	0
0	3.4174	18467000	14045000	6153500	14859000	5164000	94317000
0	323.31	5.25E+09	5.62E+09	4.19E+09	3.19E+09	7.78E+09	1.18E+10
0.041857	-0.20401	4332500	7222000	7753300	6832700	0	53127000
0.034105	-0.13774	8623600	0	0	0	9987800	0
0.000504	1.3534	15789000	0	0	0	0	40142000
0	136.1	4.54E+08	2.42E+08	7.88E+08	1.82E+08	4.46E+08	2.4E+09
0.017637	0.16205	0	0	0	0	0	0
0	323.31	6.14E+09	6.29E+09	6.08E+09	3.55E+09	9.77E+09	1.4E+10
0	323.31	1.17E+10	1.22E+10	1.37E+10	6.06E+09	2.48E+10	4.26E+10
0	32.238	77777000	46381000	97126000	39865000	1.64E+08	2.99E+08
0	5.2088	0	13416000	0	0	7279700	33243000
0	24.444	1.24E+08	1.29E+08	90247000	68159000	2.53E+08	5.36E+08
0	6.8895	1.09E+08	83426000	97308000	30392000	80915000	2.03E+08
0	7.4793	17080000	15750000	0	0	0	85540000
0	2.4058	0	14787000	29526000	0	33975000	56331000
0	30.989	0	44178000	32177000	32659000	70075000	85508000
0.006086	0.68564	0	0	638870	11418000	0	0
0	1.5331	0	34301000	68710000	6912100	71605000	93166000
0	37.385	98924000	66050000	85538000	30028000	2.01E+08	4.78E+08
0	14.351	9945900	36883000	51585000	11281000	37000000	34960000
0	60.057	2.09E+08	1.21E+08	92336000	60035000	3.16E+08	1.05E+09
0	17.763	0	0	0	0	0	44858000
0	7.9892	57104000	79233000	95846000	27899000	79006000	2.05E+08
0.001002	1.2871	32395000	13324000	23661000	5006400	0	57184000
0	23.527	15392000	17698000	9748800	11303000	77405000	1.8E+08
0	323.31	5.29E+08	6.42E+08	5.95E+08	4.96E+08	9.85E+08	1.77E+09
0	23.635	33335000	15747000	7748300	10556000	46626000	1.02E+08
0	68.608	2.97E+08	1.71E+08	2.42E+08	1.56E+08	6.88E+08	1.46E+09
0.04616	-0.2417	45374000	75686000	89159000	0	1.02E+08	0
0	6.8229	0	17367000	3554900	12822000	0	0
0	25.989	64019000	32164000	0	15088000	42970000	1.94E+08
0	234.1	2.93E+08	3.24E+08	3.72E+08	2.32E+08	3.54E+08	1.32E+09
0	18.91	5445900	36269000	20613000	1995100	60300000	1.95E+08
0	323.31	1.7E+09	1.62E+09	1.88E+09	9.8E+08	2.28E+09	4.82E+09
0	10.581	9799800	35951000	12298000	8191900	25153000	1.86E+08
0.008314	0.54324	2.02E+08	1.34E+08	64240000	24431000	2.85E+08	0
0	323.31	1.92E+09	1.29E+09	1.38E+09	7.56E+08	2.78E+09	4.16E+09
0	246.2	2.69E+09	2.67E+09	3.57E+09	2.53E+09	3.68E+09	7.16E+09
0.020131	0.10287	24713000	41518000	2.06E+08	2.98E+08	83192000	1.5E+08
0	82.644	0	35017000	42104000	22941000	42832000	1.41E+08
0	174.64	6.62E+08	6.26E+08	4.06E+08	2.17E+08	8.26E+08	2.67E+09
0	105.11	5.94E+08	3.83E+08	4.21E+08	2.7E+08	4.37E+08	1.22E+09
0	323.31	4.89E+09	5.58E+09	6.84E+09	4.13E+09	8.18E+09	1.56E+10
0	66.082	16361000	1.18E+08	1.3E+08	58108000	1.5E+08	3.43E+08
0	27.945	7.39E+08	6.77E+08	5.85E+08	3.71E+08	1.59E+09	2.8E+08
0	79.801	14818000	1.45E+08	2.16E+08	1.3E+08	76819000	2.62E+08

0.00247	1.1403	1.55E+08	0	57949000	2.05E+08	2.61E+09	1.34E+09
0	26.319	6.42E+08	6.38E+08	1.38E+09	5.86E+08	7.24E+08	4.13E+08
0	323.31	4.61E+09	2.96E+09	2.61E+09	1.12E+09	5.43E+09	1.04E+10
0	3.8217	0	0	0	0	28685000	38817000
0	3.3981	9029600	6404300	2515100	1594100	7288400	5981100
0	84.705	90529000	4.44E+08	2.83E+08	1.62E+08	1.9E+08	8.12E+08
0	124.67	4.39E+08	4.33E+08	5.43E+08	2.66E+08	7.75E+08	1.3E+09
0	14.051	49983000	57159000	12422000	31547000	42241000	1.28E+08
0	25.754	83006000	28468000	9934800	2673300	51494000	2.64E+08
0	4.6802	33407000	48528000	97470000	35197000	86986000	2.95E+08
0	154.97	5.31E+08	4.17E+08	3.49E+08	2.32E+08	4.85E+08	1.6E+09
0	14.532	1.41E+08	1.02E+08	98269000	34234000	2.13E+08	4.92E+08
0	19.321	0	0	1864100	0	1725900	14987000
0	86.14	4.74E+08	4.59E+08	6.2E+08	2.4E+08	5.76E+08	7.98E+08
0.002466	1.1286	0	0	0	0	0	0
0	15.509	1.75E+08	1.18E+08	71066000	50577000	1.04E+08	1.76E+08
0	2.6825	0	18940000	58559000	0	13889000	39261000
0	268.8	1.72E+09	8.18E+08	8.32E+08	5.12E+08	1.59E+09	3.13E+09
0	323.31	2.59E+10	2.13E+10	1.96E+10	1.15E+10	3.62E+10	6.34E+10
0	9.4569	36441000	8124000	49208000	14128000	90607000	80348000
0.006954	0.58085	12540000	20145000	8644000	0	77587000	72220000
0	38.794	4.69E+08	3.46E+08	3.4E+08	1.76E+08	7.85E+08	1.45E+09
0	23.516	3.18E+08	2.27E+08	2.13E+08	1.02E+08	4.5E+08	4.8E+08
0	24.546	2.26E+09	1.14E+09	1.2E+09	4.07E+08	3.06E+09	6.64E+09
0	69.129	1.81E+09	1.51E+09	1.13E+09	7.02E+08	1.95E+09	3.74E+09
0	4.1373	64068000	54022000	67937000	22111000	1.54E+08	1.65E+08
0	116.85	6.88E+08	1.55E+09	1.6E+09	7.24E+08	1.15E+09	1.98E+09
0	74.299	6.03E+08	5.23E+08	5.46E+08	2.96E+08	9.49E+08	1.24E+09
0	4.5136	0	0	0	0	0	5307000
0	7.7302	75377000	17747000	29238000	0	1.02E+08	1.86E+08
0.03412	-0.13611	0	0	0	0	0	42363000
0.002931	1.0504	0	0	7162400	0	0	62614000
0	278.21	7.2E+08	9.4E+08	8.74E+08	4.2E+08	9.58E+08	1.65E+09
0	323.31	5.29E+09	4.37E+09	5.37E+09	3.45E+09	6.64E+09	1.19E+10
0	73.081	2.83E+08	2.02E+08	1.07E+08	1.13E+08	3.4E+08	1.18E+09
0	287.83	1.67E+09	1.3E+09	1.45E+09	7.65E+08	2.08E+09	5.18E+09
0	59.614	1.66E+08	1.14E+08	1.52E+08	1.08E+08	3.37E+08	7.08E+08
0	7.3363	21368000	15490000	20423000	12402000	35425000	98365000
0	6.4656	76330000	52524000	71188000	18883000	1.3E+08	2.45E+08
0.034163	-0.13001	0	1775400	2464600	0	0	0
0	124.73	3.16E+08	4.67E+08	3.28E+08	1.79E+08	5.85E+08	1.69E+09
0	4.8136	0	0	0	0	0	0
0	169.48	2.95E+09	1.79E+09	8.91E+08	3.73E+08	2.27E+09	5.52E+09
0	86.768	1.48E+09	9.59E+08	1.04E+09	2.76E+08	1.53E+09	2.41E+09
0	50.661	5.5E+08	5.94E+08	6.64E+08	4.04E+08	7.81E+08	1.45E+09
0	37.734	1.79E+08	1.9E+08	1.36E+08	56601000	2.39E+08	6.56E+08
0	133.74	1.68E+09	1.22E+09	1.33E+09	4.64E+08	2.25E+09	4.95E+09
0	68.841	2.58E+08	4.5E+08	6.35E+08	3.77E+08	4.82E+08	1.32E+09
0.01677	0.17495	0	0	0	0	0	0
0	25.406	75466000	99666000	89182000	59226000	1.69E+08	6.37E+08

0	27.482	35894000	32057000	47387000	26128000	68488000	1.56E+08
0	4.7556	10850000	6149600	0	0	0	0
0	42.125	4.02E+08	2.98E+08	3.51E+08	2.26E+08	3.54E+08	3.28E+08
0	323.31	1.37E+09	1.12E+09	1.14E+09	6.2E+08	1.5E+09	3.39E+09
0	33.246	1.54E+08	94036000	20486000	4104000	1.26E+08	5.33E+08
0	47.474	0	0	0	0	0	55447000
0	1.7613	65158000	28401000	32940000	26491000	85410000	1.13E+08
0	14.787	36279000	51624000	43260000	20611000	77704000	2.61E+08
0	323.31	1.34E+09	1.11E+09	1.29E+09	6.79E+08	1.97E+09	1.91E+09
0.020542	0.09703	0	0	0	0	16882000	0
0	18.154	30299000	21041000	45331000	28500000	78103000	93406000
0	9.2176	52849000	1.24E+08	51222000	71226000	35780000	45227000
0.00149	1.1982	0	14183000	2051400	0	0	0
0	3.3382	23275000	0	0	32957000	0	12530000
0	31.096	5609400	22450000	22690000	678150	83605000	1.06E+08
0	3.3781	0	0	0	0	0	32642000
0	8.7811	0	41765000	28345000	11431000	54589000	1.7E+08
0.023286	0.006659	0	9072100	23570000	11260000	0	0
0	13.541	2039400	31998000	59621000	13722000	94281000	1.48E+08
0	26.818	31463000	66786000	38238000	11848000	31264000	3.83E+08
0	6.6571	2.5E+08	5.82E+08	4.14E+08	1.52E+08	5.3E+08	1.07E+08
0.009546	0.39356	19544000	11817000	12971000	7271200	25103000	81603000
0.02047	0.073557	0	0	0	0	0	0
0	201.06	1.01E+08	1.52E+08	1.52E+08	1.42E+08	1.33E+08	5.57E+08
0.019307	0.12684	0	0	0	0	0	0
0.003876	0.97626	0	3216700	17340000	6624100	16842000	1.12E+08
0	3.5629	11718000	31104000	0	0	1.24E+08	2.04E+08
0	55.54	1.1E+08	74880000	1.18E+08	10952000	93474000	2.17E+08
0	2.0073	26193000	7128100	0	0	42960000	61287000
0	19.346	0	0	13494000	0	8690800	1.41E+08
0.025355	-0.0182	12925000	16345000	17231000	10984000	0	27771000
0	57.867	4.18E+08	3.45E+08	2.34E+08	1.13E+08	5.42E+08	1E+09
0.009099	0.40607	0	0	0	0	0	0
0	225.31	4.64E+08	3.88E+08	2.53E+08	2.06E+08	3.61E+08	1.58E+09
0	1.5742	34027000	27894000	65395000	34998000	0	58839000
0	16.129	1.31E+08	1.23E+08	1.37E+08	61490000	2.61E+08	5.97E+08
0.002456	1.0947	4185600	5454700	0	0	0	19834000
0	280.43	1.81E+09	1.34E+09	1.12E+09	3.72E+08	2.6E+09	4.05E+09
0	6.5346	22476000	13677000	22430000	0	42720000	3.25E+08
0	44.009	2.21E+09	3.92E+09	3.43E+09	1.55E+09	1.93E+09	4.63E+09
0	3.8659	768450	0	0	0	7835300	62205000
0	20.207	54530000	19611000	8285200	2337500	45068000	3.12E+08
0	245.87	1.76E+09	1.59E+09	9.69E+08	6.23E+08	3.79E+09	8.73E+09
0	1.8104	536850	4693800	0	1313500	0	24356000
0	7.3024	24394000	20084000	29128000	28187000	66325000	1.68E+08
0	37.286	29385000	1.85E+08	2.68E+08	1.41E+08	6.27E+08	1.02E+09
0	143.54	2.36E+08	3.8E+08	4.19E+08	2.12E+08	6.75E+08	1.08E+09
0	23.387	14560000	63290000	47202000	23746000	1.22E+08	3.01E+08
0	7.6353	1.4E+08	43795000	22257000	39917000	79282000	1.24E+08
0	76.908	2.97E+08	4.57E+08	4.01E+08	2.7E+08	4.91E+08	1.14E+09

0	2.2666	0	3512300	1760800	0	0	47808000
0	17.128	74531000	38119000	43713000	90796000	2.22E+08	3.38E+08
0	6.7531	45651000	41237000	1.02E+08	51379000	1.46E+08	3.8E+08
0	5.8119	9800300	41053000	71463000	10889000	59836000	1.31E+08
0	2.4328	17771000	29148000	0	0	21311000	28441000
0	2.8192	0	2635300	10974000	0	0	0
0	43.649	1.37E+08	46924000	30397000	24984000	46714000	4.32E+08
0	17.8	2974900	30041000	31929000	16530000	28399000	2.66E+08
0	5.4876	0	0	0	0	1077900	84934000
0	5.85	46056000	41492000	68876000	34265000	44869000	1.22E+08
0	3.1715	0	0	0	0	0	0
0	182.33	9.48E+08	1.59E+09	1.77E+09	8.29E+08	1.73E+09	2.69E+09
0	37.386	1.01E+08	1.64E+08	1.12E+08	39833000	1.8E+08	6.36E+08
0	7.8189	0	0	0	0	126980	81628000
0	44.505	1.63E+09	1.67E+09	1.17E+09	3.99E+08	6.45E+08	2.63E+09
0	2.4221	0	0	0	0	0	18658000
0	6.1015	0	37832000	28311000	19237000	65764000	1.74E+08
0	17.665	0	0	32737000	0	32292000	1.61E+08
0	9.0563	3160300	0	3415400	746190	0	10464000
0	4.6808	1.15E+08	27065000	14368000	12605000	23705000	3.4E+08
0	235.3	4.83E+08	2.54E+09	4E+08	5.9E+08	3.85E+08	2.91E+09
0	7.4824	1E+09	1.63E+09	1.73E+09	5.95E+08	1.04E+09	2.14E+09
0	49.438	1.12E+08	38994000	95281000	34423000	92947000	3.02E+08
0	9.0793	2.7E+08	3.56E+08	4.43E+08	5.06E+08	2.56E+08	0
0	13.98	21788000	30944000	11108000	0	58196000	1.35E+08
0	132.84	2.62E+08	2.87E+08	1.47E+08	69099000	2.55E+08	1.07E+09
0	15.025	2.81E+08	3.28E+08	4.01E+08	1.8E+08	3.7E+08	5.71E+08
0	323.31	3.15E+10	3.62E+10	2.17E+10	7.06E+09	2.34E+10	2.35E+10
0	50.174	3.23E+08	6.74E+08	8.94E+08	4.32E+08	5.09E+08	1.27E+09
0.013405	0.23901	2709100	1937400	0	0	0	60440000
0	2.8101	0	0	0	0	0	0
0	14.069	2.35E+08	1.8E+08	90343000	46312000	1.33E+08	3.35E+08
0.026912	-0.03673	0	0	0	0	0	0
0.000502	1.297	861940	12490000	5275000	1154400	5997600	29707000
0	20.902	9.31E+08	5.38E+08	7.55E+08	3.35E+08	1.22E+09	1.74E+09
0	15.181	0	6269400	3857600	6868200	3073400	0
0	23.673	12282000	21197000	17424000	24621000	28260000	66528000
0	7.4477	28519000	21619000	0	2687600	0	0
0	117.86	1.62E+09	1.56E+09	1.17E+09	6.05E+08	1.96E+09	2.73E+09
0	15.237	10142000	0	0	0	947920	54831000
0.048433	-0.25222	3746600	0	0	755280	0	25194000
0	2.7895	22176000	0	0	0	26956000	2E+08
0.00952	0.36831	11511000	0	0	0	23158000	18331000
0	101.24	41649000	67946000	30536000	41246000	66444000	5.74E+08
0	8.9636	2.15E+08	2.59E+08	2.43E+08	1.7E+08	3.96E+08	7.57E+08
0	11.61	1.18E+08	1.09E+08	1.51E+08	84406000	1.71E+08	5.93E+08
0	27.318	2.65E+08	2.46E+08	2.98E+08	1.49E+08	3.29E+08	6.44E+08
0	274.74	9.8E+08	1.39E+09	1.23E+09	5.72E+08	2.3E+09	6.22E+09
0	4.0889	26963000	0	4284000	0	26284000	1.29E+08
0	2.2256	0	49633000	0	5859000	1.29E+08	2.27E+08

0	323.31	4.31E+08	2.87E+08	87078000	99046000	6.83E+08	1.44E+09
0	232.41	2.76E+09	2.02E+09	2.01E+09	9.63E+08	3.44E+09	6.29E+09
0.03761	-0.17103	32582000	22342000	16957000	0	25529000	56376000
0	173.5	1.09E+09	8.19E+08	1.04E+09	4.24E+08	1.22E+09	2.67E+09
0	4.8775	0	0	0	0	0	17890000
0.005241	0.81105	63252000	63442000	33863000	8576400	43968000	1.66E+08
0	44.493	0	26492000	18726000	0	0	1.16E+08
0.006095	0.68973	0	3279200	8491300	0	0	0
0	2.6081	0	0	0	10636000	6304200	84870000
0	1.7593	2999300	0	0	0	0	39482000
0	13.256	0	0	20875000	14014000	0	1.77E+08
0	13.374	0	12561000	2432400	10060000	12589000	44106000
0	44.224	1.32E+08	1.71E+08	2.63E+08	1.02E+08	3.67E+08	3.93E+08
0	191.54	1.59E+09	1.52E+09	1.62E+09	7.83E+08	2.02E+09	4.14E+09
0	10.959	19002000	1.02E+08	1.07E+08	51661000	0	4.21E+08
0	115.55	50297000	40080000	12365000	22699000	1.03E+08	4.54E+08
0	21.126	47286000	28728000	16858000	2603200	28221000	56070000
0.01803	0.14721	0	0	0	3117500	0	24434000
0	26.139	1.6E+08	1.26E+08	51141000	1.52E+08	2.19E+08	3.28E+08
0	66.591	5.52E+08	3.12E+08	2.47E+08	1.82E+08	1.07E+09	1.92E+09
0	4.4731	2.04E+08	1.77E+08	2.03E+08	1.05E+08	2.95E+08	0
0	3.8267	0	5988500	0	9679600	0	52002000
0	2.8777	0	0	9293100	0	0	0
0	18.825	1.23E+08	67974000	37441000	11074000	1.47E+08	2.28E+08
0	6.6885	0	0	0	0	0	22248000
0	9.9323	8909100	0	0	0	0	1.86E+08
0	316.06	8.21E+08	7.44E+08	7.67E+08	5.91E+08	5.44E+08	2.35E+09
0	69.678	2.68E+08	3E+08	3.36E+08	2.79E+08	6E+08	9.63E+08
0.000504	1.3568	0	4757400	0	1482600	0	0
0	269.77	1.03E+09	1.35E+09	1.47E+09	8.25E+08	3.09E+09	5.59E+09
0.006961	0.58541	0	0	0	2265800	0	0
0	90.87	1.86E+08	1.24E+08	1.92E+08	81725000	3.23E+08	6.21E+08
0	18.656	3342200	0	4186200	4208900	17669000	50281000
0	27.018	54101000	85851000	1.09E+08	42199000	1.4E+08	1.6E+08
0.011201	0.26576	0	0	0	0	12239000	19263000
0	3.9887	10137000	41793000	10734000	22763000	31818000	2.06E+08
0	254.9	4.3E+09	3.12E+09	4.08E+09	1.87E+09	4.79E+09	1.22E+10
0	1.8089	1.11E+08	79055000	89338000	41917000	1.18E+08	2.21E+08
0.005194	0.74599	16493000	19713000	0	0	24920000	0
0	5.803	9117200	0	11591000	1882700	14422000	49966000
0.023356	0.022234	24774000	0	0	0	11025000	0
0	126.07	1.68E+09	9.59E+08	5.19E+08	2.59E+08	1.8E+09	3.37E+09
0	8.9032	0	0	2659100	3222800	2301100	0
0	60.244	63960000	43341000	40382000	17384000	1.13E+08	3.76E+08
0	98.835	4.25E+08	2.33E+08	1.66E+08	60898000	6.21E+08	1.2E+09
0	106.87	64918000	2.65E+08	4.3E+08	1.73E+08	83488000	1.44E+09
0	1.8688	0	11763000	1897800	3683100	0	28914000
0	158.55	1.21E+09	1.11E+09	1.13E+09	5.1E+08	2.08E+09	4.02E+09
0	1.9194	13687000	10135000	45917000	27498000	65707000	0
0	28.104	1.75E+08	1.91E+08	2.45E+08	1.49E+08	1.66E+08	5.84E+08

0	28.051	69214000	77471000	24937000	30026000	78990000	1.3E+08
0	2.4528	16950000	0	0	0	11077000	24622000
0.015514	0.19303	0	0	0	0	0	0
0	3.6207	0	0	0	0	0	54705000
0	9.0539	9096900	0	0	0	0	75649000
0	11.9	2700100	15973000	20032000	11531000	20931000	69916000
0	3.5589	1560000	0	0	0	787490	17960000
0	17.855	66946000	57889000	35515000	33085000	18016000	1.42E+08
0	18.033	55823000	1.47E+08	1.3E+08	77159000	74351000	4.23E+08
0.026923	-0.03482	888300	0	429940	2881100	0	16409000
0.036866	-0.15961	13647000	27212000	22314000	0	20029000	26357000
0	4.1258	0	8604100	25578000	21932000	3474300	21871000
0	6.0763	0	27953000	28066000	14540000	53624000	78079000
0.001487	1.1871	27294000	22986000	0	0	67827000	1.02E+08
0	13.938	30777000	82420000	96292000	77373000	1.12E+08	1.56E+08
0	53.311	2.39E+08	1.56E+08	1.38E+08	72417000	2.27E+08	5.48E+08
0	21.627	35911000	33316000	15563000	0	64551000	1.52E+08
0	3.952	14687000	18949000	0	15514000	17538000	0
0	62.73	5.25E+08	2.68E+08	2.33E+08	1.16E+08	4.66E+08	1.65E+09
0	7.7753	0	0	0	0	0	44613000
0	17.742	58945000	23580000	86500000	33265000	26395000	1.54E+08
0	2.0408	0	48329000	28419000	8966300	54485000	1.18E+08
0.042904	-0.21286	83261000	72617000	83581000	31106000	75227000	1.42E+08
0	17.403	21826000	16844000	4216100	18614000	0	43649000
0	155.58	2.88E+08	2.68E+08	2.64E+08	1.84E+08	6.76E+08	1.15E+09
0	10.385	13166000	0	2148000	6229500	13421000	1.24E+08
0	1.9	0	0	17651000	0	19963000	25813000
0.033827	-0.12197	0	0	0	0	15068000	0
0.037641	-0.16963	0	0	0	0	0	0
0	3.4878	0	0	0	11205000	0	67123000
0	126.59	9.84E+08	4.09E+08	2.96E+08	1.43E+08	8.81E+08	2.23E+09
0	19.278	83474000	1.45E+08	1.07E+08	8025800	1.55E+08	4.56E+08
0.001979	1.1573	0	0	0	0	12394000	0
0.005228	0.78646	5043700	25137000	0	1331800	10726000	50138000
0	103.38	1.67E+09	1.12E+09	9.71E+08	4.51E+08	2.48E+09	5.18E+09
0	289.83	2.89E+09	2.58E+09	2.8E+09	1.83E+09	3.05E+09	3.56E+09
0	41.755	5.72E+08	2.87E+08	2.4E+08	1.87E+08	4.88E+08	1.09E+09
0.001	1.2598	12279000	44794000	28254000	29488000	4807600	88158000
0.005231	0.79018	44227000	53198000	12905000	0	1E+08	2.33E+08
0	1.7093	19165000	6610600	0	0	8994800	66308000
0	3.6846	0	3374300	2519000	0	0	0
0	3.9211	0	0	6211000	0	0	0
0	10.446	0	36711000	3759900	3503300	24463000	68111000
0	56.745	2.7E+08	1.58E+08	1.44E+08	62819000	3.2E+08	6.12E+08
0	12.275	75038000	0	43672000	18742000	1.25E+08	2.8E+08
0	24.098	65189000	34117000	20739000	25081000	84822000	1.33E+08
0	7.0982	8466900	8539100	27767000	23116000	78021000	89500000
0	25.615	3.24E+08	2.47E+08	1.6E+08	69399000	4.62E+08	5.77E+08
0	8.9843	0	0	0	0	0	0
0.002924	1.0297	0	18370000	0	2291000	11015000	34216000

0	21.344	51804000	1.43E+08	95477000	69234000	2.56E+08	8.04E+08
0	7.2973	99754000	58031000	95612000	45078000	79400000	1.54E+08
0	4.2088	2639800	24249000	0	2391800	0	74980000
0	11.943	0	1.22E+08	1.57E+08	1.15E+08	2.48E+08	3.48E+08
0	323.31	1.05E+09	2.04E+09	1.2E+09	1E+09	2.48E+09	4.94E+09
0	13.859	67000000	0	0	0	70419000	2.7E+08
0	1.5018	0	0	0	0	0	0
0.004321	0.91578	4486000	0	0	0	3889400	14014000
0	49.414	71395000	88438000	1.06E+08	1.01E+08	1.42E+08	4.28E+08
0	165.04	8.11E+08	8.82E+08	5.72E+08	2.93E+08	1.52E+09	3.73E+09
0.016784	0.17696	17424000	6260400	0	0	30254000	50141000
0	3.4312	0	0	0	0	807930	4185200
0	39.819	8.35E+08	6.8E+08	6.28E+08	2.67E+08	9.46E+08	2.19E+09
0	13.433	43956000	59919000	28482000	33260000	30624000	2.14E+08
0	15.212	60772000	52150000	45940000	15287000	1.16E+08	4.19E+08
0	3.7196	47753000	22954000	23208000	21588000	56688000	1.45E+08
0	11.471	30874000	23664000	26581000	12174000	45013000	40954000
0	18.788	2.08E+08	1.43E+08	1.62E+08	37014000	1.28E+08	3.68E+08
0.000999	1.2386	0	0	0	0	0	0
0	8.3115	10379000	3444100	5556200	6434400	7634700	51732000
0.026946	-0.03124	2.03E+08	2.3E+08	2.89E+08	2.02E+08	1.41E+08	1.89E+08
0.00872	0.47334	0	0	0	14569000	28555000	48486000
0	108.64	3.19E+08	4.29E+08	4.92E+08	2.1E+08	4.95E+08	1.67E+09
0	12.168	5438700	6796700	9378000	4737000	31801000	55947000
0	79.56	1.18E+08	1.42E+08	84114000	0	1.81E+08	6.46E+08
0	7.0332	36377000	25710000	22677000	0	35651000	90810000
0	3.7804	4638200	0	0	2310500	33017000	62044000
0	3.5283	0	0	0	0	0	10279000
0	1.7752	0	1880700	5462500	6662200	40704000	0
0.009528	0.37878	0	0	2178900	0	0	55593000
0.000503	1.3027	8153400	33163000	44666000	30496000	42786000	55246000
0	323.31	1.52E+09	9.14E+08	8.41E+08	4.11E+08	2.16E+09	4.87E+09
0	37.573	1.72E+08	1.78E+08	2.96E+08	1.87E+08	1.26E+08	3.73E+08
0	120.76	6.1E+08	3.04E+08	2.26E+08	1.02E+08	5.5E+08	1.8E+09
0	37.903	43485000	41417000	53469000	2462300	1.28E+08	2.41E+08
0	14.265	0	0	25303000	21212000	34079000	65325000
0	323.31	1.96E+09	2.19E+09	2.28E+09	1.06E+09	3.47E+09	7.56E+09
0	6.232	0	17988000	0	5838300	0	0
0	63.945	1.6E+08	2.96E+08	3.21E+08	81391000	4.64E+08	1.2E+09
0	45.855	5.23E+08	5.25E+08	4.72E+08	3.94E+08	6.61E+08	1.21E+09
0	202.34	1.83E+09	1.58E+09	1.98E+09	1.47E+09	2.95E+09	6.89E+09
0	18.793	15034000	38872000	22581000	8100900	1.07E+08	1.28E+08
0	3.1768	2.49E+08	1.74E+08	2.11E+08	59363000	4.43E+08	6.01E+08
0	323.31	1.47E+09	1.08E+09	1.48E+09	6.6E+08	1.49E+09	5.85E+09
0	11.24	12439000	14973000	11676000	15590000	50491000	68404000
0	10.242	66341000	53523000	9097100	39609000	28899000	1.54E+08
0	5.2418	50136000	47691000	19443000	30381000	67869000	68669000
0	46.038	0	0	5037100	2290100	7312900	15460000
0	15.152	2.52E+08	2.14E+08	1.94E+08	1.06E+08	4.47E+08	6.86E+08
0	8.1916	0	18900000	13994000	4534800	0	0

0.004776	0.8333	1452400	0	0	0	0	11061000
0	323.31	5.75E+09	4.93E+09	4.64E+09	3.4E+09	4.98E+09	1.34E+10
0	296.15	6.49E+08	5.26E+08	6.98E+08	6.22E+08	5.87E+08	2.51E+09
0	1.8484	9852400	0	0	0	0	23017000
0	2.1458	0	8945700	53502000	27821000	0	28070000
0	208.55	2.06E+09	1.41E+09	8.65E+08	1.53E+08	2.2E+09	5.71E+09
0	3.4481	1605400	1804500	0	0	2577700	21832000
0	44.485	40976000	21615000	5874200	28227000	53107000	62494000
0.024527	-0.00736	1.18E+08	1.08E+08	1.65E+08	1.71E+08	1.23E+08	2.45E+08
0	2.2957	0	0	0	0	0	0
0.048761	-0.25664	0	30791000	50921000	13553000	0	0
0	8.9546	0	0	23813000	0	26329000	86500000
0	21.922	20983000	30436000	31122000	8811300	55883000	98102000
0	19.77	1.02E+08	1.18E+08	1.4E+08	38863000	96996000	2.91E+08
0	3.3161	0	0	0	0	0	56507000
0	3.219	17358000	15477000	18219000	10304000	35661000	0
0	2.0685	0	0	0	0	20057000	56563000
0	92.312	2.18E+08	6.11E+08	3.18E+08	3.65E+08	6.66E+08	2.42E+08
0	15.533	46663000	77085000	52284000	11655000	23827000	2.74E+08
0	11.004	0	2688400	1480900	2485500	10619000	13419000
0	16.68	20603000	31136000	61104000	29439000	2.12E+08	1.47E+08
0	1.466	17612000	0	0	0	40055000	60598000
0.044033	-0.22103	6444000	4803000	6192600	0	0	0
0	11.412	9039800	53475000	61962000	19675000	1.01E+08	1.77E+08
0.014699	0.21965	9350700	9992300	21022000	4722700	15275000	0
0	13.714	0	0	13405000	3952700	18460000	52492000
0	6.9571	2359400	4257000	0	1695500	0	28373000
0	59.03	5.24E+08	5.97E+08	9.36E+08	4.49E+08	1.1E+09	2.49E+09
0	2.7962	57210000	20827000	11513000	13160000	1.64E+08	2.6E+08
0	72.716	87823000	65715000	1.37E+08	70688000	1.43E+08	3.75E+08
0	101.68	73589000	3.91E+08	3.5E+08	2.47E+08	1.19E+08	78908000
0	7.1976	0	0	0	0	0	4846400
0	36.724	1.17E+08	2.01E+08	1.09E+08	77378000	4.11E+08	8.87E+08
0	8.9193	45730000	17977000	25288000	10907000	51861000	31349000
0.041062	-0.20068	0	0	0	4937900	0	0
0	22.6	1.08E+08	73036000	95894000	60238000	1.94E+08	4E+08
0	54.171	5.67E+08	3.35E+08	3.23E+08	1.54E+08	7.16E+08	1.46E+09
0	32.907	46970000	33292000	12283000	1330000	41946000	1.53E+08
0	15.155	61426000	46420000	9737400	12004000	97797000	2E+08
0	19.702	2244600	0	0	0	0	61116000
0	22.402	3.19E+08	2.62E+08	1.25E+08	68401000	7.66E+08	1.64E+09
0	34.299	8.97E+08	3.06E+08	1.65E+08	2.23E+08	9.86E+08	4.89E+08
0	4.6201	78768000	20694000	75990000	32707000	49709000	44438000
0	29.165	1.62E+08	6.71E+08	2.46E+08	84118000	2.87E+08	6.85E+08
0.009502	0.35002	0	7325700	6412100	1214400	0	3492000
0	145.93	2.7E+08	3.35E+08	3.9E+08	1.63E+08	4.62E+08	7.34E+08
0	4.5067	36404000	40226000	16623000	18080000	63424000	60761000
0	9.1085	4.19E+08	3.73E+08	5.2E+08	1.77E+08	4.55E+08	2.87E+08
0	272.45	1.78E+09	1.27E+09	1.16E+09	5.76E+08	3.17E+09	6.22E+09
0	323.31	3.55E+09	3.35E+09	3.38E+09	1.89E+09	4.45E+09	1.32E+10

0	157.65	1.13E+09	9.48E+08	1.15E+09	5.93E+08	2.13E+09	3.63E+09
0	34.29	4.61E+08	5.52E+08	4.65E+08	2.02E+08	5.31E+08	1.45E+09
0	29.161	3.06E+08	4.12E+08	3.13E+08	1.97E+08	74758000	8.7E+08
0	17.143	12491000	25840000	25061000	0	53500000	1.05E+08
0	96.85	2.34E+08	2.11E+08	2.14E+08	88620000	4.55E+08	7.56E+08
0	155.04	2.59E+08	2.93E+08	2.86E+08	1.36E+08	5.38E+08	1.76E+09
0	3.1082	0	3567800	0	3785300	0	0
0	34.999	1.31E+08	97752000	71725000	62129000	2.17E+08	3.33E+08
0	8.2719	12292000	0	46766000	33204000	1.07E+08	1.26E+08
0.000507	1.3869	63440000	35038000	43448000	0	1.06E+08	1.82E+08
0	205.22	7.52E+08	4.59E+08	5.03E+08	2.31E+08	9.12E+08	2.26E+09
0	159.63	4.53E+08	7.83E+08	6.32E+08	5.06E+08	1.12E+09	2.99E+09
0.010342	0.2997	5221500	0	0	0	0	65404000
0	32.854	1.16E+08	94623000	54607000	64307000	1.32E+08	5.1E+08
0	13.525	2.23E+08	2.42E+08	1.44E+08	68725000	5.69E+08	1.2E+09
0	3.9309	48212000	16910000	0	0	0	96972000
0	8.3332	69848000	32155000	15607000	8490900	2.35E+08	4.43E+08
0.025333	-0.01976	0	0	0	0	0	0
0	2.3339	0	0	34385000	21323000	0	66532000
0.024946	-0.01151	0	0	0	0	5627300	0
0	4.1319	35347000	41835000	34785000	10409000	49884000	1.05E+08
0	182.68	9.03E+08	6.73E+08	5.85E+08	3.44E+08	5.16E+08	2.02E+09
0	17.346	4027700	33708000	37254000	29703000	1.75E+08	2.48E+08
0.000996	1.2012	0	0	0	0	0	27468000
0.003867	0.96676	38445000	22771000	21542000	15135000	49461000	68415000
0	16.916	1.58E+08	30883000	18249000	12974000	11569000	65884000
0	51.722	50736000	24209000	4545200	22966000	96529000	4.02E+08
0	19.684	0	1.02E+08	1.14E+08	40103000	2.01E+08	3.2E+08
0	15.546	4106900	5060700	7404100	6148100	12421000	91735000
0.00051	1.4428	17710000	0	32816000	15729000	22979000	83743000
0	15.861	1.31E+08	1.98E+08	1.77E+08	50756000	2.43E+08	6.42E+08
0	23.661	91931000	1.17E+08	1.65E+08	91360000	1.58E+08	4.95E+08
0	5.6853	27586000	30273000	58137000	42072000	42023000	0
0	9.8274	56760000	31563000	86917000	46806000	22602000	1.03E+08
0	323.31	5.54E+09	5.18E+09	4.92E+09	2.34E+09	8.63E+09	1.46E+10
0	323.31	3.21E+10	4.07E+10	4.57E+10	2.92E+10	4.19E+10	7.64E+10
0	5.2468	20464000	96593000	1.05E+08	0	1.24E+08	2.01E+08
0	51.276	1.55E+08	66966000	1.62E+08	81534000	4.06E+08	8.29E+08
0	155.13	1.16E+08	1.24E+08	56920000	17491000	2.33E+08	7.03E+08
0	1.8803	72448000	31867000	32564000	5446700	97390000	1.82E+08
0	2.9117	0	34568000	42104000	22593000	26341000	78540000
0.043639	-0.22021	0	0	0	7354700	0	0
0	3.5212	0	0	0	0	5353500	32166000
0	2.6068	0	0	0	0	24425000	1.06E+08
0	11.812	21656000	52404000	0	0	43032000	2.57E+08
0.00245	1.0832	17711000	41116000	47511000	29745000	54661000	1.41E+08
0.035699	-0.15443	75421000	14296000	35716000	13786000	0	0
0	5.733	4540500	10139000	3866100	0	21940000	74570000
0	5.0167	14418000	78819000	97719000	37955000	70090000	0
0	14.959	1.77E+08	1.94E+08	1.98E+08	97689000	1.85E+08	3.47E+08

0	2.4707	12743000	0	19626000	4233400	0	8405500
0	10.486	7205500	11087000	0	10001000	0	41953000
0	12.272	33359000	37162000	77660000	48831000	1.17E+08	3.33E+08
0.021267	0.057806	1.29E+08	1.75E+08	0	1.84E+08	2.61E+08	0
0	7.6069	0	0	20081000	10155000	16397000	0
0	31.588	1.32E+08	1.07E+08	89953000	60440000	1.04E+08	2.79E+08
0	21.434	7099300	0	0	0	6712200	46152000
0	2.2837	0	0	16666000	0	0	0
0	2.0021	0	0	0	0	0	0
0	17.523	42093000	1.05E+08	77568000	32035000	1.48E+08	4.82E+08
0	286.56	2.22E+09	1.08E+09	1.12E+09	8.95E+08	2.77E+08	3.37E+09
0	35.181	28781000	32678000	23782000	4818000	0	1.16E+08
0	6.681	1597600	0	0	0	0	4040600
0	4.4935	7432500	0	3780500	1738500	2397400	21913000
0	6.7868	0	0	0	19283000	37791000	85579000
0	22.787	6.23E+08	4.83E+08	5.49E+08	2.15E+08	6.94E+08	8.92E+08
0.04577	-0.24105	0	10944000	33493000	0	21060000	0
0	27.104	1.13E+08	81840000	1.03E+08	34284000	1.74E+08	4.39E+08
0	3.8124	0	0	0	0	40424000	93571000
0	98.512	14894000	31753000	63317000	12015000	43946000	1.84E+08
0.02086	0.064242	2.03E+08	87410000	97858000	23385000	54320000	0
0.009116	0.42004	0	0	0	0	0	14334000
0	1.8839	91219000	47496000	38099000	0	97529000	1.88E+08
0	3.7748	5967600	9881600	0	0	8035800	7216500
0	1.6225	2315400	0	0	0	2191500	1936700
0	5.4178	20481000	42294000	17276000	23896000	54507000	1.16E+08
0	140.24	6.41E+08	5.07E+08	8.19E+08	3.97E+08	1.04E+09	2.42E+09
0	2.011	0	6544500	11727000	13805000	9508000	20166000
0	140.1	1.45E+09	1.94E+09	1.03E+09	4.15E+08	1.39E+09	3.47E+09
0	2.9031	0	18129000	18147000	11225000	18695000	75922000
0	144.11	1.13E+08	95746000	1.35E+08	96432000	2.23E+08	7.68E+08
0	9.2209	0	0	0	1611400	9006200	31400000
0	323.31	2.26E+09	1.36E+09	1.39E+09	5.37E+08	3.2E+09	6.1E+09
0	85.444	1.78E+08	2.68E+08	1.89E+08	1.29E+08	5.35E+08	9.78E+08
0.023387	0.028583	51857000	23512000	9200600	12241000	58575000	1.08E+08
0	69.714	1.35E+08	1.79E+08	2.94E+08	93066000	3.04E+08	6.34E+08
0	10.191	0	25313000	2701600	3805200	69289000	98959000
0.011206	0.26773	2.11E+09	2.04E+09	2.65E+09	1.27E+09	2.88E+09	0
0	12.343	10230000	62250000	37096000	55662000	52804000	81814000
0	10.995	38578000	37205000	69884000	21713000	77472000	0
0	52.302	1.69E+08	2.3E+08	2.31E+08	1.08E+08	8.21E+08	1.53E+09
0	8.0263	1452700	1760800	0	3648700	28071000	33442000
0	98.846	1.41E+09	1.16E+09	8.91E+08	6.03E+08	2.16E+09	3.55E+09
0.008272	0.478	94646000	25812000	70899000	51123000	26948000	0
0.005196	0.74773	22761000	33641000	29960000	0	30921000	52118000
0	86.406	4.17E+08	4.19E+08	4.7E+08	3.31E+08	6.09E+08	1.59E+09
0	13.855	7516800	10966000	6289400	1362500	28407000	1.46E+08
0	60.485	1.06E+08	2.42E+08	2.72E+08	78661000	4.94E+08	1.05E+09
0	9.313	2526700	27376000	0	41946000	0	49567000
0	15.547	15854000	7361500	0	0	30503000	1.42E+08

0	93.692	1.26E+08	63809000	67336000	31415000	1.19E+08	6.24E+08
0	323.31	3.6E+09	2.25E+09	2.51E+09	1.5E+09	3.79E+09	6.31E+09
0	17.132	31526000	26230000	5513100	1058900	22615000	1.98E+08
0	5.2799	47165000	0	0	11167000	30779000	8506300
0	90.545	3.18E+08	3.33E+08	2.84E+08	1.22E+08	5.16E+08	8.3E+08
0	3.6414	0	0	0	0	45314000	56353000
0.000509	1.4147	0	23315000	14907000	0	21171000	80742000
0	26.08	84010000	64474000	51444000	36040000	1.58E+08	2.39E+08
0	9.5203	1.16E+09	8.92E+08	1.03E+09	6.32E+08	1.25E+09	2.27E+09
0	14.928	34286000	11920000	17531000	23105000	52324000	1.99E+08
0	26.529	6.18E+08	2.79E+08	3.59E+08	1.8E+08	6.35E+08	3.77E+08
0	9.429	12129000	19271000	27915000	21276000	39025000	1.18E+08
0	2.0498	0	962340	2998800	0	0	16262000
0	265.17	1.77E+09	1.89E+09	1.18E+09	1.16E+09	2.74E+09	5.59E+09
0	1.603	14020000	16261000	10029000	23324000	31290000	53279000
0	20.584	1.02E+08	96338000	1.12E+08	46919000	1.93E+08	2.96E+08
0	2.3765	11703000	9157700	14562000	0	16607000	58097000
0	33.192	1.31E+08	1.32E+08	1.18E+08	71470000	1.31E+08	2.7E+08
0	10.191	0	0	1370500	796830	0	11622000
0	14.83	52605000	38263000	0	7513400	1.43E+08	3.46E+08
0.000507	1.3994	13782000	4274800	0	0	975990	0
0	1.6584	40858000	0	0	0	45583000	85788000
0	297.14	1.35E+09	2.5E+09	9.09E+08	4.5E+08	1.43E+09	2.26E+09
0	2.4166	0	0	11770000	11234000	0	0
0	233.93	1.13E+09	1.12E+09	1.51E+09	9.34E+08	1.64E+09	2.28E+09
0	3.9908	0	54916000	51316000	36918000	51005000	1.71E+08
0	4.8063	0	0	0	0	0	17734000
0	67.94	3.27E+08	3.55E+08	3.42E+08	2.2E+08	6.92E+08	1.85E+09
0	31.272	2.07E+08	2.52E+08	2.74E+08	78072000	2.4E+08	4.96E+08
0	4.8685	33646000	17744000	38386000	0	48133000	75986000
0.004319	0.90735	59227000	64448000	66895000	36822000	1.04E+08	2.08E+08
0.005233	0.80375	0	0	0	0	8518800	0
0	1.5714	19555000	12989000	0	0	20275000	0
0	9.9277	2862300	0	30791000	21609000	0	44625000
0	323.31	3.02E+09	2.97E+09	2.64E+09	1.38E+09	4.76E+09	9.66E+09
0	54.265	43333000	57235000	0	19404000	1.06E+08	2.77E+08
0	8.6232	24048000	27651000	0	4745000	24098000	56621000
0	120.6	2.47E+08	3.57E+08	2.24E+08	74674000	3.08E+08	4.07E+08
0	103.49	4.41E+08	5.14E+08	7.09E+08	3.66E+08	6.4E+08	1.63E+09
0	2.459	0	15541000	29427000	9647600	0	40410000
0	2.7166	0	0	0	1412000	6152500	43819000
0	68.389	3.44E+08	1.84E+08	95442000	63669000	4.98E+08	1.43E+09
0	32.883	28347000	6140800	0	11350000	14892000	1.21E+08
0	74.398	6.22E+08	5.23E+08	7.03E+08	4.22E+08	1.52E+09	3.08E+09
0	12.416	0	0	0	0	22279000	61514000
0	1.7033	64497000	49839000	35424000	19138000	43161000	1.81E+08
0	3.0025	0	5004800	0	1633300	0	39159000
0	2.7009	0	0	0	22458000	0	1.03E+08
0	34.196	1.74E+08	1.01E+08	65565000	23464000	2.1E+08	4.31E+08
0	323.31	5.8E+10	4.14E+10	4.01E+10	2.31E+10	7.08E+10	1.26E+11

0	74.808	1.45E+08	1.89E+08	2.04E+08	60101000	2.31E+08	1.07E+09
0	118.87	5.97E+08	4.92E+08	7.22E+08	5.11E+08	7.82E+08	1.98E+09
0	18.083	0	9746800	13802000	547130	3499600	43135000
0	63.163	1.42E+09	1.14E+09	8.62E+08	3.51E+08	2.05E+09	3.39E+09
0	21.857	1.69E+08	1.69E+08	2.3E+08	1.08E+08	2.83E+08	4.58E+08
0	8.121	7017100	21641000	63230000	36304000	16728000	77165000
0	8.6137	0	0	0	0	9048700	1.47E+08
0	2.2705	18868000	27126000	19096000	10356000	0	31464000
0	55.472	52177000	89746000	84573000	38957000	1.52E+08	2.63E+08
0	4.5655	0	1827800	7449100	0	4701700	0
0	7.2318	27101000	22902000	0	24107000	47939000	59832000
0.001492	1.1986	59839000	0	23360000	32678000	1.09E+08	1.79E+08
0	323.31	2.72E+09	2.5E+09	2.91E+09	1.45E+09	2.39E+09	7.61E+09
0	5.9627	33446000	38713000	33788000	24470000	55475000	66150000
0	56.255	5.63E+08	6.5E+08	7.85E+08	5.37E+08	8.59E+08	1.48E+09
0	13.253	50151000	70137000	1.18E+08	44590000	1.97E+08	5.2E+08
0	3.6401	29359000	0	3501700	10314000	44156000	1.44E+08
0	10.067	20907000	0	0	0	0	96163000
0	41.244	24245000	89507000	1.11E+08	2.12E+08	1.53E+08	2.09E+08
0	91.889	1.02E+09	1.28E+09	1.67E+09	7.41E+08	1.21E+09	1.74E+09
0.009541	0.39134	66906000	1.4E+08	55479000	84198000	1.46E+08	2.97E+08
0	1.6543	14547000	21656000	0	0	31351000	52751000
0	4.2618	0	0	0	25119000	0	0
0.003863	0.95112	61854000	49973000	91821000	86067000	90022000	1.38E+08
0.031356	-0.0983	90257000	38638000	61588000	17721000	1.12E+08	0
0	3.2396	6301100	0	7644800	6938500	9231500	44031000
0	209.59	1.62E+08	1.3E+08	85216000	40668000	2.74E+08	3.99E+08
0	40.011	2.79E+08	1.61E+08	1.17E+08	55899000	3.71E+08	9.78E+08
0.012086	0.25937	14443000	2937800	0	0	18567000	0
0	2.8808	0	0	0	17716000	0	0
0	9.4431	7.67E+08	8.74E+08	2.28E+08	8.01E+08	7.14E+08	57389000
0	37.276	38013000	1.18E+08	1.38E+08	52042000	86294000	3.54E+08
0	2.3128	26693000	33632000	17098000	8786100	30111000	1.28E+08
0.033798	-0.12253	0	11441000	0	0	0	3030200
0	2.0597	0	2813300	969610	0	0	2696500
0.00198	1.1599	0	0	10195000	0	47837000	75090000
0	17.865	4055200	25631000	28023000	11954000	64592000	2.44E+08
0	6.7212	63673000	18842000	34637000	8309200	8288900	1.29E+08
0	192.67	4.7E+08	4.74E+08	3.62E+08	3.04E+08	8.55E+08	2.78E+09
0.020479	0.073963	2.63E+08	0	9176400	0	1.1E+08	3.39E+08
0	6.9781	0	1607100	1830400	7631600	2242000	66861000
0	28.653	1.09E+08	74959000	35197000	25657000	2.21E+08	4.25E+08
0	5.8517	0	12918000	19977000	0	50198000	97180000
0.000509	1.4289	0	0	0	0	31224000	71132000
0	7.8874	7301000	29230000	51429000	24760000	0	0
0	84.329	2.76E+08	2.46E+08	2.21E+08	95076000	4.99E+08	1.32E+09
0	17.082	57145000	47298000	88087000	33377000	1.11E+08	0
0	99.741	1.93E+08	70978000	62339000	33529000	5.55E+08	8.26E+08
0	47.058	0	0	0	0	20089000	80585000
0	16.165	7110200	11621000	12497000	6318300	6679100	1.14E+08

0	2.8837	44954000	27619000	18267000	14275000	56241000	1.25E+08
0	5.268	38445000	14915000	38675000	8235500	14762000	93768000
0	203.8	9.92E+08	8.76E+08	1.13E+09	5.97E+08	1.42E+09	2.01E+09
0	6.0695	37470000	32812000	45983000	14629000	51237000	1.43E+08
0	20.86	88779000	3.28E+08	2.68E+08	2.58E+08	6.56E+08	1.47E+09
0	4.7954	1.09E+08	33322000	64908000	34449000	1.18E+08	2.68E+08
0.03727	-0.16383	0	0	0	0	0	48658000
0	25.509	18286000	5164800	8207100	6740100	17226000	1.29E+08
0	3.9362	0	14513000	22156000	15769000	7080800	31239000
0	45.186	2.61E+08	1.28E+08	79918000	19241000	1.72E+08	4.03E+08
0	3.8098	13040000	14009000	15147000	0	11719000	0
0	1.9517	20635000	6382000	0	0	27531000	60277000
0	7.5576	39181000	38571000	22792000	33891000	63803000	1053700
0	7.5646	0	12237000	24450000	16755000	69224000	1.53E+08
0	19.868	2.96E+08	1.4E+08	2.66E+08	1.44E+08	1.12E+08	3.75E+08
0	323.31	2.37E+09	2.29E+09	2.16E+09	1.24E+09	1.78E+09	6.74E+09
0	22.183	1.86E+08	1.57E+08	1.86E+08	75990000	3.15E+08	8.43E+08
0	3.6943	2E+08	34574000	29089000	16430000	91873000	1.69E+08
0	106.43	5.92E+08	6.55E+08	6.58E+08	4.22E+08	1.3E+09	3.25E+09
0	252.23	1.23E+10	1.18E+10	1.29E+10	6.5E+09	1.34E+10	2.78E+10
0	3.2346	861400	790680	0	233470	1303000	21680000
0	2.2756	30172000	3202300	0	0	24788000	50380000
0	1.8198	0	52783000	26412000	27609000	85209000	1.58E+08
0	8.8338	8151800	16957000	0	14886000	0	1.12E+08
0	3.1221	1415400	729720	2409800	1498800	0	7255000
0	223.49	1.13E+09	1.27E+09	1.17E+09	6.16E+08	1.7E+09	2.8E+09
0	18.361	2.98E+08	1.6E+08	2.31E+08	1.16E+08	2.67E+08	5.84E+08
0	103.28	2.76E+08	2.45E+08	2.26E+08	1.7E+08	4.34E+08	1.23E+09
0	109.94	4.19E+08	2.79E+08	2.98E+08	1.14E+08	6.19E+08	1.9E+09
0	48.913	9.25E+08	4.82E+08	3.9E+08	1.3E+08	7.96E+08	1.51E+09
0	298.25	1.83E+09	1.3E+09	1.09E+09	5.25E+08	2.03E+09	5.36E+09
0.044801	-0.22492	0	0	0	8371300	0	0
0	87.132	4.63E+08	4.27E+08	5.01E+08	1.1E+08	7.45E+08	1.66E+09
0.00431	0.89726	0	0	0	0	0	0
0	258.6	1.3E+09	8.46E+08	1.05E+09	7.05E+08	1.92E+09	3.84E+09
0	37.976	2.48E+08	2.51E+08	1.35E+08	57763000	4.08E+08	6.29E+08
0	5.0429	0	36881000	10700000	1451100	0	65753000
0	3.7519	0	7251100	28750000	4391700	16950000	35298000
0	14.772	1.96E+08	1.12E+08	71411000	27423000	4.86E+08	7.92E+08
0	107.63	1.59E+08	1.22E+08	89380000	59473000	1.51E+08	3.18E+08
0	2.1087	0	0	0	2559800	0	29000000
0	118	1.89E+09	1.07E+09	9.36E+08	3.26E+08	1.54E+09	3.01E+09
0.002444	1.0619	0	41831000	0	11535000	52073000	1.11E+08
0	23.633	98522000	25705000	12797000	2672100	36414000	3.02E+08
0.02254	0.04471	29871000	0	0	0	31335000	80927000
0	47.264	94353000	74315000	1.25E+08	66277000	2.45E+08	90329000
0	19.941	1.32E+08	1.16E+08	85028000	66667000	2.09E+08	7.03E+08
0	20.324	0	0	29522000	0	0	0
0	71.299	37354000	1.06E+08	1.35E+08	61844000	1.1E+08	3.6E+08
0	5.835	66876000	63396000	83884000	3840100	60159000	3.57E+08

0	116.75	9.97E+08	6.22E+08	5.37E+08	3.62E+08	1.32E+09	2.75E+09
0.0065	0.58817	0	14283000	0	0	31402000	0
0	2.5922	33786000	85264000	1.02E+08	45572000	54787000	25304000
0	18.498	2.34E+08	2.43E+08	1.53E+08	92810000	2.33E+08	5.41E+08
0	5.104	0	0	13657000	0	32879000	88878000
0	57.724	1.32E+08	1.04E+08	88133000	18467000	2.02E+08	4.5E+08
0	2.1612	21720000	27227000	32228000	22080000	70204000	63033000
0	3.3661	32903000	20178000	45454000	3369700	0	70181000
0	56.753	0	11912000	0	13226000	0	68551000
0	39.417	3.76E+08	2.96E+08	1.84E+08	78223000	3.11E+08	1.2E+09
0	38.403	1.14E+08	1.93E+08	1.5E+08	65210000	1.91E+08	5.11E+08
0	4.645	15960000	26500000	0	0	56969000	0
0	5.3	58059000	39188000	37835000	10533000	53445000	1.5E+08
0	18.696	1.35E+08	55085000	1.13E+08	44075000	2.21E+08	3.47E+08
0	44.341	0	4354700	4060200	6173800	19647000	18588000
0	37.256	2.53E+08	2.1E+08	4.14E+08	1.31E+08	4.7E+08	9.26E+08
0	305.19	2.34E+09	1.49E+09	1.55E+09	8.09E+08	5.13E+09	1.02E+10
0.009095	0.40495	0	0	14503000	9889900	0	0
0	2.8776	58812000	21714000	0	4698100	57909000	64962000
0.014693	0.21562	21558000	0	0	0	14422000	55077000
0	1.9728	0	0	1766100	0	0	22653000
0	1.9943	0	3000600	6503900	4128900	0	0
0	4.8363	3912300	1975800	2173000	2060100	12228000	39789000
0	256.92	1.22E+09	2.6E+09	1.65E+09	6.72E+08	1.31E+09	6.52E+09
0	2.0653	51352000	13440000	46665000	26966000	1.01E+08	43143000
0	8.3423	0	38833000	76246000	59816000	46708000	65257000
0.006063	0.63635	0	16539000	0	0	46427000	35386000
0	50.672	75164000	37913000	46798000	33153000	93105000	3.65E+08
0	151.11	5.15E+08	5.25E+08	4.56E+08	1.78E+08	5.6E+08	1.13E+09
0.012517	0.25105	10361000	5735800	0	0	15421000	32534000
0	9.4201	4163800	88227000	93619000	50793000	1.05E+08	2.54E+08
0	7.275	28334000	48111000	71222000	25395000	15073000	1.11E+08
0	250.87	6.81E+08	5.89E+08	7.14E+08	3.05E+08	1.08E+09	2.1E+09
0	3.3413	0	22315000	67372000	25652000	43575000	1.36E+08
0.023346	0.019513	0	0	0	0	0	0
0	17.245	16330000	19674000	75691000	32615000	19590000	48109000
0	5.9082	0	42161000	53025000	8903100	0	0
0	4.3457	2402100	7680900	0	0	0	3523900
0	23.684	31243000	23949000	48380000	26183000	72518000	2.23E+08
0	7.6678	47392000	59356000	43752000	62407000	1.02E+08	0
0	104.09	1.38E+08	2.41E+08	3.16E+08	1.18E+08	5.49E+08	1.04E+09
0.026981	-0.03027	0	0	0	0	0	0
0	13.599	28463000	14026000	21912000	0	0	47785000
0	11.612	0	0	0	0	844140	1887000
0	84.634	6.76E+08	6.13E+08	3.19E+08	2.27E+08	1.13E+09	1.32E+09
0.02087	0.064776	0	4338400	0	0	0	15325000
0.005647	0.72043	61992000	41328000	24489000	13344000	39791000	62055000
0	14.47	67493000	87239000	55658000	26181000	78160000	3.51E+08
0	169.41	1.75E+09	1.23E+09	1.1E+09	7.23E+08	2.46E+09	6.25E+09
0	37.913	1.89E+08	6.88E+08	8.87E+08	5.14E+08	1.29E+08	0

0	18.333	65252000	1.74E+08	1.68E+08	49061000	2.07E+08	2.59E+08
0.045789	-0.24059	0	1824500	4638700	0	0	18756000
0	77.47	1.63E+08	2.36E+08	1.18E+08	28726000	4.18E+08	8.22E+08
0.028085	-0.06823	0	0	0	0	0	40919000
0	162.77	2.76E+09	1.31E+09	1.33E+09	6.48E+08	3.96E+09	7.48E+09
0	7.8388	0	0	0	0	13171000	6956600
0	16.773	26369000	31483000	13591000	13418000	59061000	1.31E+08
0	1.5669	0	0	0	0	16711000	20752000
0	13.947	1.73E+08	1.71E+08	2.1E+08	57821000	2.95E+08	6.34E+08
0	6.9509	12416000	8810300	27310000	5579200	14349000	51638000
0	188.01	5.67E+09	2.28E+09	1.88E+09	8.02E+08	8.96E+09	1.49E+10
0	17.976	51086000	56391000	33053000	5388100	2.17E+08	4.04E+08
0	171.65	6.69E+09	6.65E+09	9.71E+09	7.59E+09	1.03E+10	1.27E+10
0	76.964	16270000	11035000	24572000	9593500	0	23194000
0	10.795	6505300	0	5139500	0	47503000	1.09E+08
0	137.3	1.86E+08	1.5E+08	2.37E+08	1.32E+08	2.68E+08	7.34E+08
0	12.602	0	0	37309000	0	59426000	1.75E+08
0	2.2994	0	0	0	0	0	41579000
0	6.6314	0	0	0	2566600	4405400	22647000
0	4.0535	49343000	78312000	0	22035000	86144000	91304000
0	65.697	73455000	89540000	21688000	34560000	1.1E+08	2.11E+08
0	22.689	32977000	45726000	89597000	18159000	62579000	1.89E+08
0	10.489	3910400	18204000	2960900	12423000	5994900	88558000
0	15.022	13405000	19888000	42760000	0	47250000	1.56E+08
0	59.295	3.56E+08	3.92E+08	3.7E+08	1.13E+08	3.75E+08	7.32E+08
0	9.4794	3.23E+08	3.59E+08	4.09E+08	1.42E+08	6.09E+08	9.4E+08
0.009141	0.43489	4.59E+08	2.61E+08	2.1E+08	83533000	6.49E+08	1.41E+09
0	30.257	1.56E+08	1.38E+08	1.96E+08	1.27E+08	46767000	2.98E+08
0	1.4746	0	0	0	0	0	3058600
0	130.73	4.22E+08	2.94E+08	1.08E+08	43249000	8.34E+08	1.04E+09
0.003854	0.9379	0	0	0	7565500	0	23720000
0.016357	0.17975	43842000	38673000	43587000	13366000	27642000	43706000
0	2.068	0	0	0	0	0	2364800
0.005191	0.74549	7377800	3855900	4251400	0	0	0
0	33.403	1.26E+08	1.67E+08	1.02E+08	62294000	2.48E+08	2.72E+08
0.036882	-0.15903	1437200	1433700	0	0	0	6787200
0	10.299	44954000	39741000	54083000	9943800	2.07E+08	4.21E+08
0.009533	0.38089	0	15085000	0	0	35120000	0
0	2.0589	0	3136500	0	0	0	10197000
0	8.7676	0	0	0	0	0	0
0.006078	0.66977	0	0	0	0	33108000	0
0	12.132	40745000	21043000	0	12137000	31588000	1.56E+08
0	39.919	2.18E+08	1.63E+08	1.26E+08	63991000	8.79E+08	1.06E+09
0	3.7304	0	0	0	0	25397000	96754000
0.008712	0.46717	0	0	0	0	0	29886000
0.000505	1.3582	0	0	0	0	26978000	66615000
0	17.528	63430000	87442000	17878000	37003000	1.55E+08	4.59E+08
0.031753	-0.10017	0	0	0	0	22006000	51924000
0	10.567	1.75E+08	81752000	91428000	34311000	1.9E+08	4.54E+08
0	11.471	9239400	7466300	5194800	13409000	16453000	1.08E+08

0	3.2519	13101000	0	0	0	31093000	88552000
0	8.7223	4706200	6877200	0	0	9172500	28315000
0	273.05	1.67E+09	1.36E+09	1.73E+09	8.64E+08	2.16E+09	4.1E+09
0	88.39	4.03E+08	4.26E+08	2.18E+08	81321000	8.54E+08	1.87E+09
0	221.18	13170000	5.97E+08	2.97E+08	1.32E+08	29410000	4.15E+08
0	70.633	1.65E+08	1.54E+08	1.69E+08	1.29E+08	2.24E+08	1.87E+08
0	68.976	3.85E+08	3.38E+08	2.74E+08	1.52E+08	4.88E+08	1.22E+09
0.044782	-0.22568	8214900	0	637040	35632000	14243000	0
0	323.31	2.59E+09	3E+09	3.08E+09	1.6E+09	3.24E+09	1.16E+10
0	8.5661	43591000	0	43957000	18999000	69779000	1.27E+08
0	15.713	89601000	40437000	1.71E+08	81711000	60733000	3.36E+08
0	20.438	9248000	0	0	0	0	86533000
0.047658	-0.25128	0	9382400	7687400	0	0	0
0.009507	0.35039	25153000	0	9342200	5272600	30404000	92068000
0	5.0199	2476300	1462600	0	0	2727400	10989000
0.005655	0.73661	0	15770000	21551000	7303200	0	0
0	100.73	4.74E+08	4.62E+08	4.63E+08	3.11E+08	4.56E+08	2.06E+09
0	41.802	73952000	1.06E+08	90553000	36498000	61091000	6.57E+08
0	20.743	6.57E+08	4.1E+08	3.73E+08	2.22E+08	5.57E+08	1.19E+09
0	19.758	0	0	28765000	85975000	1.11E+08	2.08E+08
0	21.697	99743000	80508000	64403000	38402000	1.47E+08	5.85E+08
0.001002	1.2769	0	0	13280000	0	0	0
0	42.424	28787000	44255000	65296000	33252000	1.06E+08	2.31E+08
0	78.473	4.89E+08	2.75E+08	1.18E+08	1.01E+08	5.99E+08	7.78E+08
0	15.801	19179000	55537000	83178000	23222000	68928000	2.71E+08
0	40.916	6.49E+08	47324000	4.25E+08	2.04E+08	4.01E+08	1.02E+09
0.037885	-0.18079	0	0	0	0	0	0
0	9.4198	35908000	75341000	19185000	19818000	21467000	23118000
0	4.0852	2.96E+08	2.87E+08	2.19E+08	79607000	5.9E+08	5.69E+08
0.00149	1.1954	17517000	13362000	671420	2162900	14961000	70554000
0	9.3525	74639000	21371000	0	0	68580000	1.82E+08
0.003874	0.97456	18822000	6718400	0	0	0	25657000
0	271.38	1.07E+09	1.37E+09	1.2E+09	7.23E+08	1.92E+09	5.47E+09
0	6.6551	0	6975800	1994300	0	4641900	6349000
0	19.017	50187000	47553000	61295000	22031000	45556000	1.27E+08
0	3.4046	15675000	48119000	31486000	32317000	18329000	42370000
0	1.7238	11538000	13035000	0	0	83148000	2.29E+08
0	3.4428	2890400	25822000	52990000	28309000	55038000	89193000
0	9.9346	51077000	33461000	45216000	33439000	68857000	1.01E+08
0	138.29	4.32E+08	3.14E+08	5.91E+08	3.61E+08	4.5E+08	1E+09
0	8.7431	1.49E+08	1.87E+08	2.23E+08	1.55E+08	3.06E+08	2.89E+08
0	7.1881	26674000	29312000	38512000	8936700	0	1.14E+08
0.002923	1.0281	0	0	0	0	0	1.1E+08
0.005186	0.74118	0	0	1521900	0	0	0
0.020515	0.089964	0	5260200	0	0	8495200	0
0	20.192	0	31141000	1.31E+08	10715000	0	99964000
0	23.402	1.21E+08	1.25E+08	1.11E+08	55956000	1.63E+08	3.28E+08
0	7.7236	7895600	2976800	13526000	7482000	22004000	35709000
0	3.7394	40806000	62661000	39798000	20172000	1.23E+08	1.76E+08
0	13.246	43969000	1.33E+08	1.14E+08	63681000	2.03E+08	1.45E+08

0	2.7569	13721000	4282000	26215000	20166000	21432000	71980000
0	71.945	1.46E+08	1.5E+08	1.15E+08	64792000	1.78E+08	2.97E+08
0	7.1495	1.2E+08	1.15E+08	62779000	24645000	76868000	1.52E+08
0	15.916	0	4405900	4853200	0	2462400	82975000
0.018022	0.14413	3406800	0	0	0	2555200	32872000
0	16.47	1.4E+08	12397000	43634000	25569000	54916000	4.05E+08
0	45.092	99865000	1.19E+08	1.2E+08	38669000	1.52E+08	3.52E+08
0.037254	-0.1671	0	0	0	0	0	22693000
0.020149	0.10949	0	9459400	0	0	0	0
0	251.4	3.1E+09	2.32E+09	2.54E+09	1.11E+09	5.08E+09	1.36E+10
0	50.542	2.12E+08	70021000	54834000	0	2.26E+08	3.78E+08
0	65.786	1.09E+09	1.06E+09	1.01E+09	2.88E+08	9.36E+08	1.5E+09
0	10.954	6561500	8461600	0	3695400	0	0
0.033784	-0.12363	36815000	30234000	0	5172600	43963000	1.02E+08
0	2.834	18563000	61526000	81551000	30255000	38004000	1.73E+08
0	59.328	0	18447000	2553600	11787000	0	25176000
0.044764	-0.22715	0	0	0	0	0	0
0	43.649	2.65E+08	2.51E+08	3.09E+08	1.15E+08	4.47E+08	5.16E+08
0	207.8	6.16E+08	6.44E+08	1.15E+09	6.73E+08	9.19E+08	1.22E+09
0	157.9	4.8E+08	4.12E+08	5.05E+08	1.43E+08	3.99E+08	1.34E+09
0	284.82	1.3E+08	1.45E+08	1.13E+08	58051000	1.38E+08	2.63E+08
0.026969	-0.03085	0	10817000	0	0	0	0
0	323.31	1.47E+09	1.36E+09	1.16E+09	4.88E+08	1.63E+09	6.19E+09
0	31.468	84299000	30169000	14747000	6575700	1.54E+08	1.64E+08
0	13.41	11840000	10741000	16022000	3981500	13089000	0
0	51.196	0	28978000	58379000	20771000	81895000	1.61E+08
0	323.31	1.8E+10	2.58E+10	3.03E+10	1.51E+10	3.45E+10	4.55E+10
0.014634	0.19575	0	0	32361000	11998000	0	0
0.010782	0.28306	48270000	54366000	48690000	19678000	81687000	1.96E+08
0.017621	0.15686	40120000	19039000	0	5496400	26214000	0
0	30.598	1.58E+08	63531000	31275000	0	2.64E+08	4.71E+08
0	15.386	32570000	39655000	52766000	24945000	1.32E+08	2.8E+08
0	8.0466	32404000	20702000	9540400	0	68007000	3E+08
0	115.09	18710000	1.47E+08	1.01E+08	56996000	20978000	5.37E+08
0	91.96	1.53E+08	2.63E+08	3.17E+08	1.75E+08	2.62E+08	2.05E+08
0	28.577	3.91E+08	4.08E+08	4.91E+08	2.07E+08	7.29E+08	3.06E+08
0.018038	0.14936	2.21E+08	1.62E+08	43620000	7999700	2.49E+08	3.77E+08
0	1.6986	1.05E+08	64216000	97001000	48912000	62397000	1.58E+08
0	5.8453	23775000	21600000	7895800	0	32917000	78342000
0	1.4681	11791000	2645500	0	0	18766000	70111000
0	95.179	79518000	1.11E+08	81857000	56705000	3.76E+08	3.81E+08
0	6.3613	2487200	11248000	1685000	7745200	1161300	69418000
0	1.9685	41451000	15306000	44247000	0	92061000	1.19E+08
0.000509	1.436	0	12770000	0	0	4123400	58571000
0	9.169	11964000	15631000	9549600	4046600	15405000	71303000
0	122.72	3.69E+08	3.08E+08	2.69E+08	1.36E+08	5.43E+08	1.19E+09
0	1.9157	27515000	8572800	28540000	12095000	29212000	37219000
0	323.31	1.03E+10	1.17E+10	1.15E+10	5.69E+09	1.4E+10	2.53E+10
0.006066	0.64008	0	0	0	0	0	19985000
0	7.5905	7763100	0	0	18454000	0	65144000

0	166.53	4.24E+08	3.33E+08	3.65E+08	1.35E+08	3.34E+08	1.61E+09
0	1.9705	8195100	2652200	8581900	3192100	24761000	28397000
0	15.859	74713000	99449000	90958000	56702000	93431000	2.24E+08
0	323.31	7.67E+08	3.68E+08	3.18E+08	1.25E+08	4.35E+08	1.47E+09
0	129.12	3.07E+08	1.84E+08	1.79E+08	72393000	3.25E+08	8.77E+08
0	19.119	47019000	33547000	33641000	13473000	45490000	91230000
0	5.8798	0	0	0	0	0	9068400
0	23.844	3.7E+08	1.65E+08	1.8E+08	47565000	3.29E+08	3.69E+08
0	56.995	2.36E+08	1.48E+08	2.28E+08	1.36E+08	5.62E+08	5.61E+08
0	1.6659	2252700	17421000	21211000	12406000	8506800	45480000
0	9.1524	0	0	21545000	0	21804000	1.59E+08
0	21.327	14248000	30140000	19034000	24698000	95308000	1.83E+08
0	72.143	8.91E+08	4.86E+08	6.13E+08	3.7E+08	1E+09	1.93E+09
0	11.915	10356000	9605600	1380400	10345000	46556000	1.99E+08
0	45.209	1.45E+09	8.58E+08	9.03E+08	6.1E+08	1.11E+09	1.9E+09
0.037917	-0.17859	19535000	0	10955000	0	0	46731000
0	3.8333	5547400	0	2997100	15601000	33856000	1.64E+08
0	9.4453	1.78E+08	1.26E+08	1E+08	74187000	2.1E+08	3.22E+08
0.020461	0.071824	73323000	20581000	5410000	0	54324000	0
0	299.37	2.27E+09	2.97E+09	3.65E+09	1.74E+09	2.99E+09	7.54E+09
0	84.456	2.34E+08	2.05E+08	1.47E+08	1.61E+08	4.01E+08	7.41E+08
0.002468	1.1369	42653000	0	24333000	0	50781000	1.12E+08
0	10.419	76834000	63346000	47191000	28160000	56377000	17715000
0.034091	-0.14056	2.06E+08	1.14E+08	91346000	30804000	1.9E+08	0
0.00565	0.72422	68787000	38347000	54202000	44618000	60558000	87200000
0.039085	-0.18975	30922000	0	0	0	0	0
0	279.41	2.82E+09	1.95E+09	3.15E+09	1.89E+09	3.17E+09	8.52E+09
0	323.31	8.76E+09	6.7E+09	7.39E+09	3.7E+09	1.15E+10	3.11E+10
0	207.85	2.97E+08	2.97E+08	4.21E+08	1.79E+08	3.54E+08	2.01E+09
0	21.521	1.62E+09	1.31E+09	1.23E+09	6.53E+08	1.48E+09	1.65E+09
0.000507	1.3972	25968000	18055000	48017000	21071000	30105000	33605000
0	3.2976	2700600	2481000	2705700	3219800	3710300	48647000
0	43.801	2.25E+08	2.3E+08	1.39E+08	89327000	2.43E+08	5.54E+08
0.044408	-0.22289	0	12350000	4410300	1596600	12856000	20176000
0	14.414	0	14287000	6661900	5688200	20000000	90502000
0	9.7579	72445000	2.18E+08	3.9E+08	84896000	91631000	4.27E+08
0	2.4004	4.06E+08	3.49E+08	5.67E+08	1.07E+08	6.98E+08	1.79E+09
0	210.04	1.02E+09	1.05E+09	6.79E+08	3.39E+08	7.81E+08	2.34E+09
0	56.283	33050000	11771000	15378000	10703000	1.57E+08	3.76E+08
0	67.586	2.05E+08	4.14E+08	1.12E+08	46003000	1.16E+08	2.83E+08
0	39.926	70862000	60207000	61315000	28880000	98209000	2E+08
0	4.4884	8719000	2607700	0	0	0	3823900
0	19.134	48071000	33138000	26185000	7742100	77651000	1.91E+08
0.01972	0.11685	0	0	0	0	0	43921000
0.00995	0.34121	3.76E+08	3.16E+08	3.21E+08	1.19E+08	3.83E+08	0
0	22.593	1.28E+08	1.14E+08	2.76E+08	1.29E+08	1.9E+08	2.81E+08
0	61.633	21029000	65811000	50817000	32354000	98630000	4.6E+08
0	68.295	1.06E+08	84986000	1.35E+08	18843000	1.05E+08	2.65E+08
0	7.9309	1.29E+08	69381000	60284000	9094400	1.35E+08	5.5E+08
0	202.89	1.23E+09	8.95E+08	7.17E+08	4.26E+08	7.89E+08	3.34E+09

0	61.51	4.34E+08	2.74E+08	2.49E+08	2E+08	5.63E+08	2.19E+09
0	7.1221	4214700	17450000	0	0	28530000	1.04E+08
0.000506	1.3758	25526000	13259000	20071000	10705000	49040000	79055000
0	4.8416	0	18165000	36068000	30620000	68978000	86835000
0	14.624	65823000	44916000	41133000	15573000	6164400	1.41E+08
0	13.004	50612000	51240000	37776000	33310000	89630000	2.89E+08
0.000508	1.4091	0	18176000	19040000	0	60272000	94112000
0	14.11	26771000	7072500	12200000	15075000	8580100	52580000
0	6.7702	14514000	26022000	16015000	29863000	1.3E+08	2.2E+08
0	6.3333	2.72E+08	1.94E+08	2.2E+08	73001000	4.42E+08	7.92E+08
0	208.05	1.59E+09	1.22E+09	9.39E+08	4.93E+08	1.94E+09	3.31E+09
0.010767	0.27234	0	19468000	13815000	12950000	34645000	64672000
0	2.2271	47773000	3629900	9110700	0	0	1.77E+08
0	38.618	5.57E+08	4.27E+08	8.87E+08	4.16E+08	1.02E+09	1.57E+09
0	3.5392	33060000	21738000	45315000	41089000	0	63520000
0	42.047	2.8E+08	2.17E+08	1.51E+08	42139000	6.15E+08	1.42E+09
0	13.845	39110000	16039000	0	11293000	72131000	2.7E+08
0	320.79	1.27E+09	1.61E+09	2.07E+09	1.13E+09	2.13E+09	5.36E+09
0	28.861	47212000	1.06E+08	1.61E+08	20965000	1.07E+08	3.76E+08
0.045845	-0.23376	22303000	5364900	8649600	3938000	26392000	0
0	8.838	79214000	72959000	0	3521900	81417000	1.34E+08
0	73.819	5.77E+08	3.01E+08	1.99E+08	1.28E+08	8.68E+08	1.89E+09
0	95.219	4.71E+08	6.82E+08	5.1E+08	1.87E+08	4.83E+08	1.44E+09
0	58.655	1.14E+08	1.8E+08	1.53E+08	1.11E+08	1.89E+08	5.62E+08
0	25.416	1.92E+08	1.97E+08	2.23E+08	1.21E+08	4.48E+08	5.18E+08
0	161.53	2.47E+09	3.15E+09	3.7E+09	1.63E+09	4.13E+09	6.63E+09
0	25.941	5737000	55857000	97232000	44018000	39323000	1.7E+08
0	10.74	4195200	4339000	9305600	7136900	14793000	79103000
0	7.9764	0	0	0	17530000	36680000	52764000
0.034889	-0.14508	23492000	35706000	34583000	18988000	0	0
0	14.624	41960000	14171000	0	6831100	0	29584000
0	58.57	6.58E+08	6.16E+08	6.03E+08	2.54E+08	6.87E+08	1.6E+09
0	323.31	1.44E+09	1.99E+09	1.52E+09	1.11E+09	2.93E+09	6.46E+09
0	44.422	1.02E+08	70673000	70820000	24470000	1.26E+08	96887000
0	323.31	1.62E+09	1.64E+09	7.94E+08	7.75E+08	1.15E+09	4.09E+09
0	20.581	1.12E+08	58166000	99922000	54900000	1.06E+08	2.3E+08
0.000511	1.45	64934000	54761000	29723000	13554000	39394000	84910000
0	22.019	2.59E+08	1.25E+08	3.37E+08	1.74E+08	5.17E+08	8.59E+08
0	105.52	4.35E+08	6.25E+08	6.8E+08	3.12E+08	6.64E+08	1.28E+09
0	1.5334	0	11120000	0	0	16005000	0
0	40.749	0	0	0	0	0	10386000
0	144.74	1.95E+08	1.95E+08	2.77E+08	1.24E+08	3.03E+08	9.31E+08
0	4.5082	0	22050000	3168600	0	0	1619400
0	85.102	83413000	1.48E+08	1.36E+08	53686000	2.12E+08	3.67E+08
0	1.5109	2.08E+08	1.14E+08	75897000	22325000	2.4E+08	0
0.016777	0.17682	23019000	11815000	14465000	8699200	35000000	1.08E+08
0	25.303	1.16E+08	1.61E+08	1.81E+08	85616000	1.1E+08	4.25E+08
0	16.574	1.3E+08	1.15E+08	66127000	53511000	92195000	5.61E+08
0	2.6602	27388000	0	11532000	507900	0	1.6E+08
0	3.1736	0	27667000	20474000	13497000	60364000	1.17E+08

0	42.857	2.07E+08	2.35E+08	2.56E+08	1.08E+08	2.42E+08	7.39E+08
0.001001	1.2606	5076500	15475000	3132000	0	0	0
0	8.4608	2.41E+08	1.6E+08	1.93E+08	64133000	2.44E+08	0
0.000506	1.3805	0	0	2351700	0	0	0
0	137.42	7.97E+08	4.94E+08	5.8E+08	5.08E+08	1.28E+09	2E+09
0.009124	0.42523	17258000	0	0	0	55083000	1.23E+08
0	9.8379	12541000	90698000	31429000	88374000	26216000	70897000
0.034177	-0.12729	0	0	0	0	0	0
0.003885	1.0072	3421600	20266000	0	0	17717000	39686000
0	154.08	4.94E+08	3.79E+08	4.39E+08	1.44E+08	5.94E+08	8.33E+08
0.042544	-0.20993	0	25885000	54665000	23966000	0	0
0	25.116	47747000	52456000	0	83809000	38153000	69326000
0.047328	-0.24558	0	0	0	0	28139000	27062000
0	2.1329	15142000	23204000	3825000	0	0	51073000
0.044745	-0.22861	0	0	0	0	0	1.81E+08
0	17.064	2894300	19918000	1758000	1911700	0	89739000
0	55.557	8.51E+08	1.06E+09	2.83E+08	2.66E+08	2.43E+08	2.33E+09
0	12.018	1.03E+08	50316000	50272000	13159000	2.18E+08	5.35E+08
0	182.59	8.79E+08	7.27E+08	5.65E+08	3.51E+08	7.96E+08	3.35E+09
0	19.436	1.17E+08	2.02E+08	1.4E+08	51493000	3.52E+08	5.64E+08
0	323.31	1.45E+09	7.34E+08	4.22E+08	2.13E+08	2.42E+09	6.68E+09
0	3.9487	0	15413000	0	0	47493000	71872000
0.033841	-0.12121	35500000	25096000	0	0	23703000	0
0	60.506	1.23E+08	2.5E+08	92281000	24690000	1.62E+08	2.13E+08
0	34.567	3.76E+08	4.66E+08	8.35E+08	6.08E+08	2.76E+08	7.95E+08
0	2.126	0	4344800	0	0	0	0
0	323.31	3.49E+09	3.48E+09	3.37E+09	1.52E+09	5.41E+09	1.04E+10
0	20.693	1.22E+08	75197000	1.06E+08	13275000	2.61E+08	6.22E+08
0.037869	-0.18124	0	0	0	0	0	3413700
0	1.7232	342790	0	3126400	7024600	0	0
0.037563	-0.17326	7.5E+08	3.55E+08	2.91E+08	45669000	1.99E+08	0
0	69.242	7142400	7404100	17700000	7478900	23885000	1.11E+08
0	39.313	1.79E+08	1.72E+08	2.65E+08	1.32E+08	2.26E+08	4.61E+08
0	20.354	60817000	1.63E+08	2.24E+08	88265000	1.23E+08	3.09E+08
0	197.74	9.89E+08	1.83E+09	1.54E+09	9.38E+08	1.77E+09	3.69E+09
0	56.028	29663000	77039000	46970000	20985000	83945000	2.35E+08
0	23.624	6.69E+08	5.31E+08	8.05E+08	4.27E+08	8.71E+08	4.27E+08
0	39.825	73932000	0	1.1E+08	62937000	81922000	1.28E+08
0	323.31	6.83E+09	6.84E+09	8.26E+09	4.43E+09	8.44E+09	1.77E+10
0.047308	-0.24593	0	0	0	0	0	0
0	142.63	1.12E+08	2.14E+08	1.29E+09	2.51E+08	47240000	6.47E+08
0	31.715	1.93E+08	1.55E+08	2.23E+08	1.15E+08	2.32E+08	5.6E+08
0	323.31	2.73E+09	1.97E+09	1.69E+09	9.02E+08	4.62E+09	9.4E+09
0	123.64	2.17E+08	3.96E+08	3.41E+08	1.9E+08	6.75E+08	1.77E+09
0	27.076	1.46E+09	1.08E+09	1.2E+09	6.07E+08	1.51E+09	2.1E+09
0	14.907	2.47E+08	2.42E+08	1.87E+08	62019000	2.25E+08	2.49E+08
0	147.15	3.78E+08	2.85E+08	3.06E+08	2.47E+08	7.05E+08	1.27E+09
0.008708	0.4642	0	0	0	0	0	0
0	65.692	1.63E+08	76639000	71794000	77339000	1.29E+08	7.41E+08
0.02773	-0.05362	13231000	0	0	0	0	57380000

0	1.8405	0	0	0	0	32190000	73634000
0	3.065	0	0	0	0	0	10270000
0	323.31	8.42E+09	8.87E+09	8.72E+09	4.84E+09	1.09E+10	2.16E+10
0.011211	0.26808	2.42E+08	12594000	40357000	25241000	2.05E+08	0
0	57.102	1.58E+08	2.03E+08	88228000	42875000	1.89E+08	6.6E+08
0	323.31	2.81E+09	2.77E+09	2.35E+09	1.04E+09	3.5E+09	8.86E+09
0	71.045	61439000	15810000	2021600	0	24594000	2.44E+08
0	2.7571	0	0	0	11631000	25377000	45565000
0.040664	-0.20018	0	0	0	0	12572000	0
0	17.192	40212000	36187000	33754000	3752500	15411000	40361000
0	19.856	0	31088000	19346000	15644000	4450200	1.33E+08
0	51.797	4.29E+08	3.58E+08	3.64E+08	1.32E+08	4.17E+08	1.22E+09
0	323.31	1.33E+09	1.24E+09	1.39E+09	7.32E+08	2.1E+09	4.8E+09
0	2.0791	55154000	52625000	0	33982000	43892000	61742000
0	46.257	81109000	1.21E+08	1.02E+08	57664000	1.44E+08	3.93E+08
0	9.5251	1.99E+08	1.33E+08	1.03E+08	10674000	35894000	2.59E+08
0.043693	-0.21633	17328000	0	0	0	0	66681000
0	1.9295	38645000	61895000	28738000	13548000	82175000	1.07E+08
0.00608	0.67049	0	14977000	8742600	0	17430000	0
0	162.71	1.21E+09	1.26E+09	1.25E+09	5.43E+08	3.16E+09	5.25E+09
0.007401	0.56695	0	0	4257700	2213600	0	1470700
0	30.897	99101000	1.19E+08	1.59E+08	76579000	1.95E+08	3.3E+08
0.015507	0.19218	19551000	19210000	25387000	10527000	24500000	69744000
0.002462	1.1169	14629000	0	0	4937700	13143000	94338000
0	3.392	0	1691700	0	0	0	0
0	9.2054	0	0	0	1393700	8881600	7160700
0.043675	-0.21736	0	0	0	0	0	28225000
0	15.777	0	0	0	0	0	7346500
0	8.6147	60504000	12511000	20556000	4171100	1.55E+08	2.56E+08
0	17.836	0	0	0	0	11594000	36821000
0	17.148	8.29E+08	8.8E+08	1.17E+09	6.93E+08	1.79E+09	2.32E+09
0	45.209	31666000	45046000	49056000	4926100	72574000	0
0	248.26	1.87E+09	1.56E+09	1.69E+09	8.07E+08	2.64E+09	5.83E+09
0	10.144	1.07E+08	56505000	53736000	39019000	1.14E+08	54543000
0	18.575	16471000	7667200	13435000	4727600	39998000	1.74E+08
0	110.79	2.99E+08	2.64E+08	3.06E+08	47376000	3.34E+08	8.66E+08
0	1.6504	16807000	19942000	0	17449000	0	36761000
0	72.52	2.14E+08	87525000	34300000	27691000	3.05E+08	7.2E+08
0.047677	-0.24991	14603000	0	19121000	6435300	0	0
0	5.1457	533960	0	2632700	0	0	20898000
0	8.4737	0	54538000	82359000	34943000	86700000	2.97E+08
0	23.867	0	6193800	4306500	8820600	21118000	9823500
0	190.43	2.82E+09	1.82E+09	1.67E+09	9.37E+08	4.66E+09	8.03E+09
0	70.301	1.56E+08	1.69E+08	1.22E+08	1.56E+08	2.14E+08	5.67E+08
0	138.62	2.08E+09	1.7E+09	2.04E+09	8.57E+08	3.2E+09	6.7E+09
0	2.1835	0	11811000	0	0	13151000	25114000
0	8.1912	0	7878700	0	4347000	0	3314400
0	26.105	1.69E+08	3.45E+08	3.76E+08	2.3E+08	2.86E+08	4.87E+08
0.018014	0.13742	0	2215200	0	0	0	1922400
0	100.41	9.76E+08	1E+09	7.98E+08	2.17E+08	1.02E+09	1.32E+09

0.037901	-0.18037	0	0	2.75E+08	1.06E+08	0	1.13E+09
0	88.022	1.09E+08	1.6E+08	1.51E+08	1.64E+08	1.63E+08	6.73E+08
0	69.278	8.11E+08	1.02E+09	1.38E+09	8.49E+08	1.68E+09	3.45E+09
0	323.31	4.09E+09	2.45E+09	2.41E+09	1.23E+09	4.97E+09	8.28E+09
0	14.488	18559000	3097500	10955000	0	11886000	17052000
0.025311	-0.02157	0	0	0	1445400	0	0
0	80.819	45463000	1.4E+08	87441000	67705000	1.99E+08	4.7E+08
0	1.7925	51521000	39847000	27054000	11769000	83436000	97839000
0	35.872	6244100	48905000	76125000	36463000	1.84E+08	2.75E+08
0	25.768	8.69E+08	7.28E+08	7.51E+08	3.81E+08	1.05E+09	2.08E+09
0	2.8516	4707600	12059000	0	1934500	18633000	42778000
0	29.691	55449000	37769000	77074000	36060000	76702000	1.98E+08
0	2.1483	27584000	50412000	45767000	19254000	98188000	94452000
0.009901	0.30678	1427300	2867200	8385900	25024000	9243200	0
0	117.53	1.2E+09	9.74E+08	8.91E+08	5.19E+08	1.38E+09	3.42E+09
0	29.65	3.82E+08	2.51E+08	57674000	1.11E+08	32012000	26235000
0	2.3717	30050000	46463000	19473000	16315000	47007000	1.65E+08
0	8.9392	51813000	43972000	0	29738000	38186000	1.17E+08
0	83.614	6.78E+08	3.73E+08	3.61E+08	2.45E+08	1.27E+09	3.13E+09
0	45.762	2.37E+08	3.15E+08	4.15E+08	2.26E+08	5.61E+08	8.46E+08
0	211.47	1.41E+09	8.25E+08	8.03E+08	4.36E+08	1.36E+09	2.93E+09
0	169.27	1.78E+09	1.93E+09	2.78E+09	1.7E+09	3.01E+09	5.51E+09
0	113.18	3.16E+08	2.64E+08	1.21E+08	1.11E+08	2.91E+08	8.59E+08
0	3.7419	0	2.06E+08	1.05E+08	0	90579000	1.69E+08
0	78.426	1.03E+08	2.66E+08	97508000	1.41E+08	61210000	9.7E+08
0	2.2301	0	31076000	27351000	4858200	0	0
0	102.67	3.06E+08	3.22E+08	2.06E+08	89226000	3.47E+08	1.27E+09
0	5.1541	59907000	26721000	0	0	41320000	50102000
0	6.0678	9540700	22157000	23092000	11249000	0	22982000
0	51.831	4.95E+08	4.11E+08	6.48E+08	6.68E+08	8.98E+08	1.7E+09
0	2.9807	20621000	24810000	0	8649800	7112800	64681000
0	29.389	1.12E+08	1.07E+08	46111000	53756000	2.51E+08	5.09E+08
0	78.264	9.21E+08	1.14E+09	1.57E+09	5.77E+08	9.2E+08	2.13E+09
0.004323	0.91821	47268000	20379000	16003000	14392000	76283000	1.42E+08
0.004306	0.89034	0	0	0	0	0	0
0	2.3495	43497000	61808000	51575000	31012000	72442000	78155000
0	3.7203	0	0	0	0	0	37034000
0.003861	0.94707	0	0	0	0	0	21646000
0	3.1625	0	4228500	0	2497900	8479300	2527000
0.003872	0.97	0	0	0	0	0	0
0.029275	-0.08688	13288000	5784400	5555600	2725900	22032000	0
0	7.3586	24990000	21140000	40950000	16610000	10042000	1.75E+08
0	323.31	9.5E+09	1.14E+10	9.17E+09	5.46E+09	1.39E+10	3.54E+10
0	14.073	46388000	50892000	82478000	28164000	58875000	68030000
0	92.968	5.28E+08	5.69E+08	7.1E+08	3.69E+08	7.71E+08	1.38E+09
0.042201	-0.20848	55668000	0	26194000	29910000	73117000	0
0.024548	-0.00381	0	12530000	23215000	0	0	0
0	19.636	3.29E+08	2.45E+08	3.19E+08	1.65E+08	6.13E+08	8.45E+08
0	1.687	14534000	15135000	17402000	8701000	40506000	98504000
0	9.4969	31100000	38471000	33665000	18236000	30177000	1.47E+08

0	19.987	2.26E+08	2.57E+08	3.04E+08	1.76E+08	3.56E+08	9.97E+08
0	2.8929	0	4125700	39768000	18095000	0	4053300
0.004769	0.81832	0	0	0	0	38286000	0
0.002461	1.1155	0	9789400	14659000	0	0	0
0	7.5762	8505400	0	5899500	2644900	1953600	29216000
0	32.28	1.28E+08	72050000	84818000	35659000	1.57E+08	5.6E+08
0	2.2278	0	0	0	0	0	79282000
0	48.036	1.93E+08	1.59E+08	62304000	69203000	3.43E+08	5.06E+08
0	11.916	1.09E+08	95157000	1.39E+08	24259000	1.3E+08	2.39E+08
0	11.118	12393000	0	0	2109300	51075000	1.73E+08
0	1.553	0	0	1297300	0	0	4760700
0.018054	0.15219	7.01E+08	3.44E+08	56840000	34683000	5.29E+08	0
0	2.3001	0	7015500	0	9017500	8365100	27610000
0.000502	1.2972	13733000	0	0	13433000	0	43408000
0	157.85	3.42E+09	1.01E+10	6.19E+09	1.3E+09	2.67E+09	1.37E+10
0	2.3276	12494000	22195000	24907000	4938700	39286000	0
0.002928	1.04	10823000	0	0	22793000	31032000	70523000
0	9.5576	24140000	60026000	0	14518000	65320000	1.32E+08
0	38.154	15453000	26082000	50711000	0	1.17E+08	2.98E+08
0	3.1529	40863000	16084000	35791000	19695000	61842000	1.36E+08
0	7.3436	14021000	4626000	26022000	18912000	19705000	0
0.006941	0.57043	0	0	0	16779000	0	0
0	22.451	31244000	59071000	36388000	15591000	79841000	2.09E+08
0	4.5479	35233000	71668000	62549000	23689000	56470000	83282000
0	323.31	1.87E+10	1.78E+10	7.76E+09	5.34E+09	2.66E+10	5.28E+10
0	11.943	1.65E+08	1.36E+08	1.73E+08	39510000	2E+08	4.12E+08
0	88.519	1.57E+08	1.16E+08	96542000	50084000	1.89E+08	5.16E+08
0	7.0213	53197000	19025000	10765000	16107000	76546000	1.48E+08
0	9.6967	1.72E+08	1.35E+08	1.92E+08	82795000	1.79E+08	4.08E+08
0	53.907	3.46E+08	2.05E+08	2.44E+08	63246000	4.19E+08	9.94E+08
0	8.3314	9394300	0	0	0	10966000	1.7E+08
0	1.5867	0	0	0	0	0	22443000
0	10.126	0	0	0	0	0	38199000
0.009103	0.40655	0	5267200	0	0	3421600	0
0.048413	-0.25564	0	10739000	0	0	16831000	0
0	5.22	0	77932000	1.39E+08	55965000	0	1.09E+08
0.000505	1.3612	63752000	34823000	34668000	23592000	80259000	1.86E+08
0.020122	0.099817	30391000	0	25662000	24558000	20254000	66001000
0	323.31	6.02E+09	5.36E+09	5.87E+09	2.53E+09	6.87E+09	1.28E+10
0.0061	0.70034	0	0	0	0	0	22006000
0	5.773	26832000	28970000	18433000	10140000	55014000	1.7E+08
0	4.4154	92089000	44220000	68548000	23664000	52883000	51676000
0	17.8	82842000	52321000	33697000	7576400	1.2E+08	2.11E+08
0	14.677	21345000	43799000	57003000	18753000	40279000	1.7E+08
0	16.98	50512000	39694000	1615500	0	64873000	1.44E+08
0	23.611	4.72E+08	7.83E+08	8.16E+08	5.03E+08	9.57E+08	1.57E+09
0	39.291	2.3E+08	1.46E+08	1.44E+08	82270000	2.78E+08	7.46E+08
0.030945	-0.09528	23906000	0	0	0	0	0
0	86.438	2.82E+08	3.8E+08	3.93E+08	2.26E+08	4.95E+08	9.39E+08
0	2.2278	26034000	15732000	0	0	0	60399000

0	23.598	32363000	63659000	51633000	35277000	91387000	2.39E+08
0.000503	1.3194	9616600	0	0	0	23177000	34677000
0	23.042	78947000	1.52E+08	86292000	62045000	3.8E+08	6.93E+08
0.027671	-0.06325	23184000	21857000	15897000	6633900	18042000	41606000
0	219.84	5.55E+09	5.1E+09	6.98E+09	4.38E+09	6.68E+09	8.23E+09
0	323.31	5.94E+09	3.54E+09	5.24E+09	1.88E+09	8.86E+09	1.3E+10
0.041805	-0.2073	10548000	0	0	8495300	0	57306000
0	57.669	1.08E+08	75645000	1.05E+08	61784000	1.25E+08	6.23E+08
0	75.142	5.17E+08	2.9E+08	1.57E+08	1.01E+08	4.96E+08	1.27E+09
0	5.4098	3.99E+09	3.24E+09	2.71E+09	1.94E+09	4.69E+09	6.5E+09
0	3.4633	45168000	43677000	40013000	65271000	45351000	1.36E+08
0.023296	0.006858	0	12241000	6270300	0	11241000	0
0.01468	0.21236	47194000	0	8706600	0	42269000	80474000
0	6.5134	0	37754000	1.11E+08	33713000	75629000	1.31E+08
0.009112	0.41841	1.4E+08	14720000	30832000	3849200	0	4.18E+08
0	20.687	0	40397000	27808000	15791000	24504000	56914000
0	10.638	42206000	86841000	54664000	21295000	71152000	3.04E+08
0	10.36	43608000	22390000	15672000	19915000	53996000	1.26E+08
0	38.173	72296000	51206000	50279000	24395000	34410000	3.15E+08
0	6.112	1.01E+08	62057000	38168000	15645000	46953000	1.94E+08
0	58.256	4.2E+08	4.07E+08	2.66E+08	2.41E+08	7.71E+08	1.41E+09
0.00293	1.0478	0	0	0	0	0	8496800
0.00051	1.4378	3175000	10399000	5825700	1802200	0	7573900
0	21.509	0	35541000	53390000	16675000	44994000	1.19E+08
0	26.116	91479000	97502000	49836000	57714000	1.9E+08	4.38E+08
0	100.6	64096000	1.94E+08	2.15E+08	1.18E+08	2.33E+08	8.07E+08
0	24.027	1049500	20204000	5577000	10677000	0	55232000
0	263.85	1.44E+09	1.42E+09	1.43E+09	5.05E+08	3.39E+09	6.63E+09
0	40.079	1.85E+08	1.04E+08	97674000	25924000	1.77E+08	4.97E+08
0	133.33	2.77E+08	3.59E+08	2.54E+08	1.7E+08	5.13E+08	1.4E+09
0.009108	0.40921	0	0	0	0	8492900	0
0.001487	1.1737	22475000	29672000	25812000	11518000	21967000	63963000
0	28.83	1.67E+08	1.39E+08	83788000	46425000	2.71E+08	7.14E+08
0.004304	0.87527	30460000	16207000	19365000	7577300	57499000	1.38E+08
0	8.6921	40584000	45050000	42857000	27480000	77720000	61226000
0	146.25	4.07E+08	4.15E+08	7.86E+08	4.88E+08	3.47E+08	8.94E+08
0	73.436	6.82E+08	5.14E+08	4.72E+08	3.1E+08	9.42E+08	2.02E+09
0	2.5765	5.86E+08	4.88E+08	5.09E+08	2.83E+08	1.12E+09	5.83E+08
0	24.206	2749800	53709000	34808000	50399000	33270000	2E+08
0	323.31	2.17E+09	1.48E+09	1.6E+09	9.99E+08	2.57E+09	4.81E+09
0	194.15	2.55E+09	2.6E+09	2.39E+09	1.3E+09	2.7E+09	6.6E+09
0	43.772	1.46E+08	2.67E+08	3.47E+08	1.49E+08	3.39E+08	6.38E+08
0	178.15	9.12E+08	1.09E+09	6.76E+08	3.66E+08	9.1E+08	1.54E+09
0.005243	0.81304	889720	0	1111300	0	1669700	8136400
0	24.873	46873000	19488000	15424000	5841500	83806000	39985000
0	10.039	3244000	4378800	0	0	9337800	20205000
0.00831	0.54222	55414000	32189000	26431000	7013900	57524000	46649000
0.039485	-0.19364	12774000	0	0	0	0	0
0	44.434	16964000	14163000	0	0	0	15330000
0.001977	1.1471	35718000	31110000	22721000	0	0	0

0	1.7458	0	0	0	0	0	20995000
0	18.952	0	41813000	14584000	15823000	1.53E+08	2.87E+08
0	1.7229	0	11717000	0	1563800	0	44935000
0	174.87	1.62E+08	2.65E+08	2.12E+08	78257000	2.86E+08	2.57E+08
0	23.884	5.99E+08	3.34E+08	1.69E+08	69473000	8.43E+08	1.14E+09
0	119	4.18E+08	3.66E+08	4.33E+08	4.28E+08	2.9E+08	1.15E+09
0.016792	0.1782	51515000	49553000	60273000	11887000	67398000	1.04E+08
0.008276	0.48138	0	0	2368900	0	0	3627600
0.002451	1.0844	73717000	50589000	44651000	34462000	1.1E+08	0
0	21.752	0	2087400	26864000	7048100	38902000	66882000
0	3.3858	49448000	62539000	1.17E+08	51093000	1.28E+08	2.04E+08
0	163.94	5.15E+09	3.63E+09	5.23E+09	4.61E+09	4.02E+09	9.09E+09
0.023336	0.015385	55432000	75222000	53277000	0	1.07E+08	0
0	8.9873	40059000	22867000	0	0	1.23E+08	1.15E+08
0	49.903	65541000	49253000	1.23E+08	99369000	83945000	2.61E+08
0	5.5588	0	11976000	30448000	3718700	0	22690000
0	2.9311	0	0	0	0	0	65238000
0.000505	1.3588	9587600	11290000	2576800	0	20722000	25086000
0	36.166	64776000	75083000	41088000	19443000	74737000	3.37E+08
0	22.232	96884000	1.73E+08	1.98E+08	93636000	2.68E+08	4.34E+08
0	24.248	1.81E+08	1.45E+08	1.71E+08	52017000	2.35E+08	7.79E+08
0.020888	0.068538	12637000	0	8819100	4603200	0	20626000
0	15.778	0	35704000	37548000	7073000	2738000	47627000
0	4.2126	15794000	6716800	0	4350700	0	30152000
0.0043	0.85658	18884000	0	13050000	0	0	41051000
0.026564	-0.02611	0	0	0	0	0	28750000
0	1.7851	0	0	0	0	2079300	25019000
0	43.815	46124000	2.41E+08	2.38E+08	93794000	3.7E+08	2.94E+08
0	10.974	96760000	1.39E+08	0	6913700	43393000	1.31E+08
0	185.95	1E+09	6.72E+08	5.42E+08	2.64E+08	1.3E+09	3.62E+09
0	78.607	7.55E+09	3.58E+09	3.31E+09	1.39E+09	1.05E+10	1.76E+10
0	2.8941	9075700	0	0	0	4905400	59254000
0.002921	1.0189	0	0	15199000	0	0	27225000
0.000502	1.2991	0	0	0	0	0	58448000
0	47.461	20048000	7161800	25379000	0	25594000	1.19E+08
0	52.492	2160900	15847000	8496300	7374900	46836000	1.83E+08
0	323.31	1.2E+09	1.3E+09	2.06E+09	1.27E+09	2.22E+09	4.51E+09
0	3.869	0	17691000	17886000	11410000	0	0
0	4.1868	16372000	7852800	0	0	0	8100100
0.00292	1.0173	0	0	0	0	0	53746000
0	11.357	0	30409000	0	7084300	0	90864000
0	32.443	11349000	4559300	68548000	25029000	54354000	94228000
0	111.75	1.06E+08	1.09E+08	1.32E+08	46108000	2.66E+08	1.01E+09
0	4.5129	0	9439800	8690800	2609900	60964000	19537000
0	2.3893	0	0	0	0	0	48999000
0	9.5711	1.39E+08	50697000	1.19E+08	13072000	1.89E+08	1.79E+08
0	2.6109	10019000	20546000	0	2940900	7911200	12510000
0.045827	-0.23526	0	9268900	0	5217100	0	0
0	19.336	18202000	24274000	20572000	5902700	11156000	86616000
0.003857	0.94005	0	0	0	0	0	0

0	34.254	3.13E+08	4.89E+08	3.71E+08	88968000	6.84E+08	7.92E+08
0.008287	0.49307	4139600	20620000	7354300	0	0	1.14E+08
0	1.5664	0	39162000	29250000	15465000	31738000	80235000
0	18.014	90407000	67627000	61773000	21878000	1.63E+08	3.21E+08
0	13.525	5029600	0	0	0	5466500	13592000
0	43.656	34055000	1.38E+08	89467000	0	1.26E+08	1.75E+08
0.006957	0.58164	0	1739300	6751400	0	0	0
0	41.639	0	26966000	3846000	4781000	31971000	1.01E+08
0	36.239	1760500	22046000	5853200	0	25692000	1.31E+08
0	6.9341	44090000	83981000	52890000	44946000	10774000	0
0	7.7738	0	0	0	1934400	44380000	57673000
0	61.728	73897000	49245000	22677000	25193000	1.16E+08	2.14E+08
0	19.828	45016000	31410000	27463000	26121000	41116000	1.84E+08
0	16.795	3.2E+08	1.83E+08	1.94E+08	61843000	4.96E+08	9.3E+08
0	240.25	1.37E+08	4.84E+08	4.21E+08	2.77E+08	4.01E+08	1.07E+09
0	25.852	61283000	87722000	82791000	27066000	51639000	3.32E+08
0	11.769	83096000	43269000	74321000	20775000	1.74E+08	1.29E+08
0.020506	0.08633	82559000	0	0	27138000	31856000	1.72E+08
0	2.5915	6682900	24309000	8189600	5757700	23658000	70172000
0	94.736	3.57E+08	3.16E+08	3.65E+08	3.67E+08	6.5E+08	1.35E+09
0	25.371	38646000	52278000	78828000	31136000	6741100	1.74E+08
0	2.4827	79340000	42305000	44824000	21963000	1.25E+08	3.79E+08
0	323.31	1.63E+09	1.19E+09	1.25E+09	7.54E+08	1.81E+09	5.66E+09
0.025322	-0.02124	9.7E+08	6.13E+08	5.05E+08	1.65E+08	8.31E+08	1.53E+09
0	23.132	30060000	0	0	0	0	43049000
0	14.341	23987000	1.02E+08	60614000	42869000	2.18E+08	5.39E+08
0	13.431	0	0	2283600	3709100	3123300	22534000
0	323.31	1.49E+09	2.49E+09	3.03E+09	1.97E+09	3.31E+09	7.05E+09
0	24.076	1.13E+08	47695000	28163000	17210000	15076000	4.37E+08
0.003887	1.0074	0	0	0	0	0	43629000
0	9.6033	0	27357000	4759800	0	0	95782000
0	22.952	0	8140900	17256000	28206000	48329000	1.17E+08
0	8.2599	0	0	0	0	0	9194400
0	13.439	7704100	2406700	10308000	0	7438600	25928000
0	4.519	0	0	0	0	0	5212200
0	2.1849	0	30076000	23428000	24511000	33894000	0
0	2.7656	10634000	0	13448000	7219900	0	65832000
0.017629	0.16186	0	0	0	0	0	0
0	15.914	1389800	0	0	0	7694600	4938900
0	8.4532	27778000	0	0	0	75804000	1.19E+08
0.037578	-0.17192	9718100	0	0	0	20551000	6504800
0.001488	1.192	0	0	12228000	0	0	60433000
0	6.9769	33103000	6968900	20900000	0	35979000	0
0	1.5043	18960000	16695000	13733000	0	11209000	0
0.000998	1.2341	0	0	8271300	0	0	0
0	5.8513	18597000	9542100	0	0	25945000	0
0	9.9329	9284700	714580	3529700	0	1091100	23081000
0.000997	1.2167	0	0	0	6725500	0	0
0	4.0289	3936600	0	0	0	5299900	29311000
0	1.9727	47915000	24304000	29431000	15114000	26683000	1.19E+08

0	2.0924	2409000	0	0	0	2266500	13507000
0.027327	-0.04645	17357000	0	19149000	36586000	0	0
0	115.39	2.83E+08	4.16E+08	4.22E+08	2.66E+08	3.42E+08	3.42E+08
0	72.167	4.36E+08	7.12E+08	2.25E+08	2.37E+08	4.84E+08	2.45E+09
0	1.6822	0	45364000	52610000	17769000	79544000	73307000
0	2.9248	946640	11646000	0	3614100	25460000	33418000
0.005201	0.75847	0	0	0	24637000	0	0
0	5.8052	3126100	42024000	31045000	0	0	77539000
0.037948	-0.17736	0	0	0	756560	0	21914000
0	88.147	4.11E+08	2.8E+08	2.95E+08	1.6E+08	5.46E+08	1.25E+09
0	19.986	78233000	18813000	58869000	13763000	1.17E+08	2.14E+08
0	6.6723	589970	0	0	0	0	39136000
0	68.151	2.97E+08	1.61E+08	1.38E+08	52288000	2.01E+08	5.08E+08
0	39.262	1.05E+08	1.81E+08	1.43E+08	88302000	3.01E+08	3.81E+08
0.039435	-0.19605	0	0	0	0	0	0
0	39.397	42431000	63048000	60575000	29227000	25637000	1.73E+08
0	46.156	6.85E+08	2.77E+08	2.77E+08	1.03E+08	7.52E+08	1.09E+09
0.00051	1.4402	26623000	17014000	3464800	5062100	18236000	83270000
0	49.959	53005000	1.51E+08	85102000	1.04E+08	1.05E+08	4.04E+08
0.003859	0.94702	0	0	4043200	0	0	0
0	66.914	2.68E+08	1.38E+08	1.59E+08	51293000	4.71E+08	9.52E+08
0	5.7275	10827000	0	0	0	0	78104000
0	4.9318	0	8764200	0	0	0	23870000
0	58.891	1.36E+08	1.51E+08	2.64E+08	1.53E+08	1.63E+08	2.62E+08
0	2.9248	5.32E+08	4.74E+08	6.27E+08	3.91E+08	6.25E+08	1.06E+09
0.039468	-0.19375	17519000	11982000	40055000	0	45988000	90661000
0.014667	0.21105	20451000	0	0	0	0	41397000
0	42.598	1.01E+08	2.23E+08	3.04E+08	2.03E+08	1.54E+08	6.63E+08
0	14.719	36448000	75382000	30989000	14757000	79163000	2.87E+08
0	4.6483	44623000	59102000	22211000	0	98531000	2.94E+08
0	14.959	7740600	65781000	38856000	77720000	4981600	2.05E+08
0	24.339	1.69E+08	2.19E+08	1.86E+08	64160000	2.91E+08	5.71E+08
0	11.571	15181000	34472000	55179000	24065000	35570000	1.15E+08
0	223.99	2.09E+09	1.73E+09	1.81E+09	7.49E+08	2.48E+09	2.92E+09
0	323.31	2.38E+09	2.1E+09	2.72E+09	1.76E+09	3.56E+09	7.35E+09
0	6.826	6159900	38767000	33377000	4712500	20071000	23144000
0	5.9385	45031000	86584000	1.2E+08	33739000	1.89E+08	5.39E+08
0	110.4	1.13E+08	58985000	24852000	4173600	1.01E+08	4.59E+08
0.01466	0.21059	0	0	0	0	0	0
0	7.5122	28618000	31182000	0	17576000	0	1.04E+08
0.003865	0.96407	0	6995300	0	0	8955700	0
0	17.391	68892000	96314000	65240000	36541000	1.07E+08	3.14E+08
0	7.8907	29084000	40262000	34159000	17492000	51610000	2.1E+08
0	323.31	2.5E+09	3.59E+09	1.2E+09	2.99E+09	2.04E+09	5.33E+09
0	11.959	38449000	61473000	34425000	16079000	1.13E+08	1.69E+08
0	23.659	68839000	46985000	10205000	6751000	85300000	2.75E+08
0	88.567	37448000	33927000	32776000	21645000	78591000	1.49E+08
0.035294	-0.15169	0	37189000	49668000	0	0	27882000
0	9.8286	22432000	0	0	0	0	1.31E+08
0	11.298	36414000	0	0	0	48844000	1.25E+08

0	127.83	3.54E+09	2.93E+09	2.68E+09	1.33E+09	3.9E+09	6.44E+09
0	7.5443	12350000	0	0	0	0	8158100
0	2.2101	0	0	0	8928000	0	6315400
0	199.74	1.4E+09	9.28E+08	6.45E+08	4.37E+08	1.07E+09	4.1E+09
0	43.612	1.54E+08	1.98E+08	1.94E+08	1.11E+08	2.48E+08	5.41E+08
0	2.6797	90002000	38912000	25232000	10306000	1.08E+08	3.02E+08
0	10.388	2195800	0	7618600	3541500	3621300	31221000
0	18.106	63023000	5620000	32222000	28624000	47849000	58100000
0	23.655	1.67E+08	1.23E+08	2.34E+08	1.38E+08	2.54E+08	3.59E+08
0.005636	0.70759	25603000	10922000	12504000	11228000	93450000	81163000
0	5.1752	204500	0	14627000	0	0	12286000
0.041839	-0.20588	79180000	34605000	18497000	21045000	1.27E+08	1.86E+08
0.005218	0.77294	18287000	12020000	0	0	11712000	52676000
0	162.32	2.62E+08	4.19E+08	3.49E+08	2.34E+08	4.35E+08	1.41E+09
0	10.904	45730000	47990000	17873000	12832000	87716000	76759000
0	112.71	3.22E+08	1.29E+08	1.62E+08	47986000	5.02E+08	1.42E+09
0	157.54	60742000	1.89E+08	2.8E+08	1.36E+08	2.52E+08	8.62E+08
0	107.01	6.06E+08	5.59E+08	5.54E+08	2.51E+08	7.53E+08	1.42E+09
0	129.17	1.11E+08	3.89E+08	4.61E+08	1.73E+08	2.64E+08	1.21E+09
0.012075	0.2524	0	21587000	33529000	15645000	30129000	37910000
0	1.6074	47498000	29740000	32364000	9157400	0	44075000
0	5.372	6213600	1201500	535810	0	3360100	5270900
0	58.489	1.37E+08	1.19E+08	1.35E+08	56744000	2.27E+08	4.37E+08
0.003878	0.97751	0	0	0	0	0	0
0.009919	0.32536	50496000	47902000	14783000	0	1.42E+08	0
0	10.992	7951900	22556000	10764000	6824400	9961400	50361000
0.036928	-0.156	15293000	0	0	0	0	60041000
0.047697	-0.24691	0	0	59018000	1.27E+08	0	0
0	10.522	973890	26805000	28653000	18622000	24334000	1E+08
0.008306	0.53757	0	3127800	0	3022500	0	0
0	92.249	7.13E+08	5.53E+08	4.55E+08	2.72E+08	8.02E+08	4.25E+08
0	18.443	11330000	30330000	8005700	7811600	44879000	46144000
0	2.0337	0	0	0	0	0	44410000
0.006951	0.5791	0	10030000	15159000	0	0	26677000
0.02014	0.10942	0	0	2977900	0	1268700	0
0	21.154	55318000	26468000	63872000	6514900	74305000	2.15E+08
0	7.0368	0	0	0	0	0	3500300
0.027707	-0.05993	0	15328000	0	0	23816000	70296000
0	12.65	8334700	0	0	0	0	7550700
0	106.76	1.39E+09	8.94E+08	8.84E+08	7.61E+08	1.73E+09	1.09E+09
0.002463	1.1206	17340000	13294000	0	6988800	17942000	0
0	1.9206	0	0	0	0	1188900	22431000
0	37.881	4.11E+08	4.53E+08	5.8E+08	3.44E+08	4.13E+08	1.36E+09
0	26.541	1.92E+08	2.85E+08	1.62E+08	1.63E+08	4.06E+08	7.44E+08
0	10.61	44990000	12751000	0	0	28803000	77977000
0	2.6002	0	15215000	0	0	45038000	82962000
0	11.696	5.71E+08	5.29E+08	5.75E+08	1.33E+08	6.75E+08	1.3E+08
0	3.2884	0	0	0	0	0	9717100
0	22.35	0	44625000	54144000	29846000	16582000	1.29E+08
0	29.037	22525000	55144000	71797000	18032000	31879000	1.28E+08

0	8.3503	61064000	38720000	6978000	15229000	1.1E+08	40169000
0	1.5523	16269000	11387000	18968000	17273000	28943000	62197000
0	11.183	60192000	18489000	32962000	9921500	1.46E+08	3.8E+08
0	40.239	78787000	1.19E+08	1.78E+08	87258000	1.67E+08	3.87E+08
0.001003	1.2929	6983100	0	0	0	0	0
0	85.037	76637000	1.49E+08	98348000	60907000	1.89E+08	3.46E+08
0.002469	1.1393	0	0	1570900	0	0	0
0.002446	1.0685	0	0	0	0	0	22202000
0	14.885	0	0	0	0	0	0
0	2.2212	8882200	12819000	26243000	4583300	25386000	0
0	25.486	88485000	66399000	58087000	0	1.27E+08	1.91E+08
0.024936	-0.01343	0	0	0	0	0	0
0	1.5578	0	0	0	0	27923000	39975000
0.028073	-0.06939	3565500	3149000	0	2332200	0	4669200
0.006527	0.63035	6890000	6050500	0	0	10141000	0
0	3.3572	26609000	58511000	43360000	16282000	1.21E+08	1.58E+08
0	323.31	1.25E+09	1.28E+09	1.56E+09	1.03E+09	1.8E+09	4.88E+09
0	27.038	8.23E+08	7.73E+08	8.66E+08	4.37E+08	1.08E+09	1.65E+09
0.004331	0.93341	7.11E+08	5.76E+08	2.96E+08	1.89E+08	7.71E+08	0
0	32.44	4.25E+08	9.95E+08	1.19E+09	2.92E+08	8.72E+08	8.71E+08
0	3.1795	46574000	28864000	28190000	17268000	66541000	1.21E+08
0.005238	0.80785	4007500	11852000	0	0	0	4061500
0.002447	1.0722	9535100	7363800	59364000	33873000	0	0
0	8.4896	0	29012000	32372000	22869000	0	0
0.000509	1.4206	11636000	29751000	60584000	15197000	20945000	34500000
0.045063	-0.23143	0	0	0	0	0	0
0	1.8037	0	0	0	0	30417000	66046000
0	276.55	3.27E+09	2.2E+09	1.31E+09	4.99E+08	4.53E+09	9.93E+09
0	26.66	0	0	0	25057000	0	28745000
0	4.0649	0	1552900	0	0	0	2788500
0	237.61	1.29E+09	1.51E+09	1.36E+09	6.64E+08	1.71E+09	4.69E+09
0	17.484	4675700	51542000	15843000	14713000	85142000	3.59E+08
0	11.302	18132000	1.82E+08	1.21E+08	60790000	89818000	4.1E+08
0	2.5506	0	1851900	18194000	39179000	0	0
0	16.583	1.18E+08	78485000	65064000	80720000	72451000	9398600
0.006512	0.61067	0	0	5104600	0	3275900	48778000
0	38.989	2.09E+08	96705000	1.01E+08	11977000	1.99E+08	2.89E+08
0	3.2942	1.65E+08	3.29E+08	2.89E+08	0	2.6E+08	5.34E+08
0.006503	0.59482	0	0	0	0	0	0
0	11.031	4702400	31963000	48914000	32935000	0	1.05E+08
0	10.154	53163000	70410000	55623000	39101000	59402000	1.33E+08
0.018046	0.15108	7672900	25857000	0	7606200	26385000	67716000
0	25.461	22203000	24015000	11864000	9691700	10487000	2.14E+08
0	25.927	40053000	1.28E+08	51362000	66746000	1.36E+08	5.08E+08
0	5.3108	29123000	71500000	2.42E+08	4.75E+08	57692000	96565000
0	3.8371	0	0	0	0	4597300	0
0	47.336	82176000	1.92E+08	3.55E+08	1.67E+08	2.2E+08	2.17E+08
0	152.77	7.03E+08	6E+08	7.59E+08	4.82E+08	1.85E+09	4.67E+09
0	6.7616	42212000	44710000	63392000	18112000	1.39E+08	3.41E+08
0.000511	1.4436	0	3275500	3898500	1674500	0	2530500

0	2.3901	40420000	29430000	32528000	0	0	7837900
0.000506	1.377	59093000	75325000	47608000	29779000	41528000	82983000
0	20.849	50864000	1.67E+08	1.07E+08	64671000	1.79E+08	4.39E+08
0	131.85	1.33E+09	1.14E+09	6.15E+08	2.65E+08	1.79E+09	3.66E+09
0	5.6658	1.17E+08	79171000	53033000	2719800	1.3E+08	2.64E+08
0	49.109	3.55E+08	2.5E+08	1.66E+08	72361000	4.03E+08	8.02E+08
0	42.55	2.36E+08	1.87E+08	2.14E+08	64837000	1.68E+08	3.95E+08
0.003891	1.0075	41604000	46960000	1.3E+08	0	24137000	1.14E+08
0	10.771	34593000	43608000	58831000	34031000	1.36E+08	2.68E+08
0.046531	-0.24379	0	0	13589000	0	0	50518000
0	323.31	5.59E+09	9.81E+09	7.74E+09	4.17E+09	6.59E+09	1.87E+10
0	8.6979	3.76E+08	5.35E+08	7.11E+08	3.18E+08	9.52E+08	4.51E+08
0.037594	-0.17103	32786000	0	0	0	34939000	70208000
0	4.3476	21422000	0	0	1565200	35470000	46400000
0	7.9967	0	0	11738000	15381000	0	7368100
0	3.7633	3890800	18043000	3910800	2306600	0	67968000
0	4.4973	28065000	69556000	64647000	61880000	1.09E+08	4.74E+08
0	5.6484	48455000	51259000	55868000	38191000	59310000	1.03E+08
0	5.6665	40797000	20043000	0	20604000	24058000	1.49E+08
0.009132	0.42864	0	0	0	0	31047000	50236000
0	6.9816	52652000	38371000	27176000	21605000	0	2.42E+08
0	23.876	2.39E+08	2.27E+08	83423000	2.12E+08	1.98E+08	2.76E+08
0	2.7922	16714000	0	0	0	73174000	1.24E+08
0	70.023	4.43E+08	3.44E+08	3.14E+08	1.49E+08	5.05E+08	1.97E+09
0	3.195	1370900	0	0	0	0	7976800
0	35.937	1.04E+08	1.06E+08	65556000	28986000	85588000	4.78E+08
0	5.7042	0	0	0	0	0	35457000
0	148.89	7.94E+08	7.29E+08	8.94E+08	3.56E+08	7.54E+08	2.06E+09
0	16.563	31608000	90455000	11436000	43338000	0	3.39E+08
0	8.2024	15111000	42497000	20954000	0	78707000	1.51E+08
0	18.027	1.05E+08	56307000	91502000	67507000	1.79E+08	0
0	42.065	2.35E+08	99778000	2.38E+08	1.13E+08	2.1E+08	5.17E+08
0	1.5108	0	0	0	0	6310700	78026000
0	3.9483	39563000	25204000	41237000	13741000	42840000	49878000
0	22.121	0	86638000	0	7672900	25156000	20490000
0	6.3043	0	0	1428500	4974500	2806300	5988900
0	114	1.12E+08	63837000	26118000	13570000	1.04E+08	3.11E+08
0	103.57	6814800	39378000	33483000	32063000	49475000	3.63E+08
0	17.485	38545000	8243500	11285000	18998000	54466000	27097000
0	2.0604	30888000	0	18057000	18897000	49650000	70158000
0	2.1874	15401000	30282000	0	2725000	0	0
0	5.3736	26878000	36835000	30293000	0	90485000	42536000
0	119.74	2.59E+08	4.98E+08	4.18E+08	97757000	3.34E+08	2.19E+09
0	6.0723	38444000	65813000	93921000	74781000	78484000	94786000
0	139.82	6.79E+08	4.51E+08	5.7E+08	2.29E+08	1.04E+09	1.67E+09
0.005211	0.76239	0	3292700	3856000	1816200	0	9104700
0	31.113	34439000	2248300	0	1246500	3787100	84173000
0	14.841	1.53E+08	39457000	1.01E+08	34520000	1.48E+08	3.7E+08
0	14.904	23079000	24625000	18083000	5062000	23926000	1.09E+08
0	10.821	5.41E+08	3.4E+08	2.83E+08	1.16E+08	4.68E+08	1.24E+09

0	51.268	3.14E+08	2.16E+08	2.41E+08	90990000	4.7E+08	7.47E+08
0	4.047	0	0	0	0	0	0
0.006509	0.60808	25323000	42615000	38127000	22258000	22154000	74479000
0	9.3705	21422000	18688000	78140000	38417000	0	68767000
0	2.3319	23973000	61112000	31485000	14057000	58980000	1.21E+08
0	9.6827	7402900	28993000	9420400	14265000	42480000	96322000
0	4.7313	16285000	9557100	2252700	7594400	35825000	52891000
0	2.4386	0	19899000	0	0	0	26153000
0.04469	-0.23098	0	0	48154000	0	0	0
0	70.465	95858000	85415000	1.51E+08	70670000	42393000	5.31E+08
0	3.574	47075000	0	42785000	4777900	1.24E+08	2.6E+08
0.020497	0.084195	0	1.26E+08	1.27E+08	84899000	0	54372000
0	11.828	81801000	25118000	56472000	0	44521000	60670000
0.004312	0.89806	0	0	10083000	2310000	0	3786700
0.006524	0.62945	0	0	0	0	0	0
0.010787	0.28728	0	0	1.26E+08	0	0	0
0	9.871	15971000	0	0	14144000	46311000	85016000
0	287.96	6.58E+08	4.5E+08	4.14E+08	1.31E+08	1.46E+09	3.44E+09
0	17.723	38405000	66457000	95522000	33596000	1.27E+08	4.58E+08
0.001001	1.2673	0	0	0	0	0	17776000
0	2.498	0	0	2980000	0	0	0
0	61.083	68069000	82171000	1.2E+08	84632000	1.37E+08	5.42E+08
0.008284	0.48619	20999000	16229000	0	0	0	43968000
0.009511	0.35807	0	56982000	64563000	33772000	1.35E+08	2.09E+08
0	121	5.15E+08	4.33E+08	3.31E+08	1.65E+08	7.25E+08	1.59E+09
0.029312	-0.08283	13353000	0	0	0	0	33344000
0	18.621	0	21234000	46039000	29385000	74680000	1.32E+08
0.016762	0.16683	0	0	0	0	0	0
0	139.88	4.33E+08	1.12E+09	6.62E+08	2.65E+08	3.1E+08	7.5E+08
0	82.837	1.04E+08	85087000	1.1E+08	50158000	1.35E+08	5.32E+08
0	18.421	73702000	1.12E+08	1.48E+08	25608000	1.24E+08	42436000
0	15.51	0	0	2926200	1020600	1596800	10457000
0	11.755	70165000	2.19E+08	1.03E+08	56415000	1.38E+08	3.97E+08
0.048394	-0.25572	0	0	0	1022600	0	0
0	6.09	24708000	0	25818000	24662000	20972000	55245000
0	22.246	0	30671000	34534000	51367000	25979000	1.2E+08
0.03011	-0.09173	87641000	4.83E+08	5.25E+08	3.34E+08	8.89E+08	1.74E+09
0	30.398	93727000	46704000	81521000	37545000	69221000	3.09E+08
0.02255	0.044722	12098000	0	0	0	21232000	40393000
0	8.494	0	11282000	29847000	0	33146000	79008000
0	3.1787	6.04E+08	5.25E+08	3.36E+08	2.87E+08	1.77E+09	2.92E+08
0	17.66	21735000	58784000	44345000	17951000	55759000	1.04E+08
0	107.71	1.14E+08	1.94E+08	1.37E+08	74146000	3.23E+08	7.5E+08
0.044727	-0.22881	6480000	9556100	0	0	0	0
0	55.405	2.16E+08	2.14E+08	1.81E+08	1.01E+08	3.29E+08	7.93E+08
0	54.724	1.32E+08	59270000	1.67E+08	36267000	77864000	3.36E+08
0	18.781	3.52E+08	3.04E+08	4.15E+08	3.26E+08	1.17E+08	7.33E+08
0	48.761	45924000	1.46E+08	1.94E+08	1.02E+08	2.19E+08	6.78E+08
0	3.9217	0	22626000	20295000	0	0	92570000
0	32.751	5710000	73238000	17512000	7794500	1.34E+08	2.32E+08

0	11.515	43363000	20337000	36696000	14116000	43721000	64388000
0	9.4172	4359900	0	0	0	0	29089000
0	1.9096	17878000	0	0	3792800	25018000	42258000
0	13.445	11843000	0	0	2981500	9207700	1.44E+08
0	10.116	0	25669000	1632500	10718000	0	61959000
0	6.1117	4678700	3834700	3664600	716680	6513200	16859000
0	1.9259	0	0	0	0	0	13306000
0	30.36	2E+08	1.65E+08	87152000	24202000	3.83E+08	1.05E+09
0.009941	0.33712	0	0	0	0	0	0
0	14.2	31389000	30608000	22387000	13012000	26165000	1.76E+08
0	1.854	0	0	27179000	13738000	0	0
0	4.5816	8536200	11146000	16334000	19708000	0	11515000
0	244.59	3.87E+08	5E+08	2.97E+08	1.84E+08	6.96E+08	1.66E+09
0	45.687	33398000	94638000	39980000	74771000	31815000	1.36E+08
0	2.8164	0	0	652640	0	0	13073000
0.0155	0.1918	3495800	0	0	0	0	46697000
0	6.7364	0	0	0	0	120190	37601000
0.000996	1.2154	23715000	22178000	16308000	2156600	72239000	98096000
0	6.2741	14063000	45475000	38831000	20139000	16730000	1.33E+08
0	7.3609	7046600	3321600	0	0	3886900	34881000
0	9.7209	16664000	4855700	0	5807300	29962000	41592000
0	323.31	4.86E+09	4.32E+09	4.18E+09	2.18E+09	6.79E+09	1.48E+10
0	60.614	59225000	93336000	1.08E+08	94430000	55027000	4.75E+08
0	11.548	86697000	30602000	50066000	0	52406000	1.17E+08
0	15.584	11838000	7794300	0	0	24170000	43441000
0.005644	0.71999	93206000	58209000	29765000	50558000	41770000	0
0	3.9346	0	0	0	0	3810000	6249000
0	34.514	9.35E+08	9.49E+08	4.42E+08	2.82E+08	1.35E+09	9.45E+08
0	2.2915	0	10582000	0	0	17603000	10126000
0	26.409	1.26E+08	2.02E+08	2.13E+08	57639000	1.55E+08	9.56E+08
0	21.974	1.46E+09	9.21E+08	1.42E+09	5.46E+08	1.54E+09	3.64E+09
0	113.96	3.66E+08	4.15E+08	3.51E+08	1.23E+08	4.28E+08	1.13E+09
0	6.0693	93172000	72996000	45104000	22542000	40376000	1.85E+08
0	5.8587	10484000	17261000	63372000	15562000	0	74724000
0	45.122	43613000	98802000	79667000	5443700	2.52E+08	6.25E+08
0	3.09	24782000	22638000	25515000	23727000	70379000	2.5E+08
0.042562	-0.20975	0	0	0	0	0	0
0	6.4227	10361000	9793900	21443000	5380200	4015100	29975000
0	131.64	2.73E+08	2.73E+08	2.43E+08	1.21E+08	3.65E+08	1.54E+09
0	35.183	79823000	43035000	5842200	20506000	1.41E+08	2.16E+08
0	2.6865	971480	0	3172400	0	728100	5121900
0	87.185	81948000	1.46E+08	1.18E+08	82785000	40716000	80137000
0	45.786	9207400	88034000	20774000	17711000	99396000	2.08E+08
0	9.8385	24529000	41680000	46581000	17390000	27867000	82979000
0.008692	0.44254	0	10026000	0	5528300	0	53789000
0	20.895	1.2E+08	84602000	58957000	42617000	37659000	2.52E+08
0.043711	-0.21597	0	0	0	0	0	0
0	95.399	1.44E+08	2.13E+08	1.62E+08	2.35E+08	1.25E+08	1.43E+09
0	16.893	64159000	95990000	1.41E+08	38690000	1.01E+08	4.82E+08
0	5.954	0	13942000	22608000	9813700	41870000	71817000

0.000502	1.296	3303200	0	0	1199400	0	72676000
0.012081	0.25597	0	0	0	95550000	1.49E+09	1.55E+09
0	1.6669	12432000	0	9387200	0	0	0
0	62.116	1.71E+08	87814000	53833000	38606000	1.14E+08	1.8E+08
0	2.3599	0	0	0	2978900	1414600	19646000
0	3.2876	0	0	0	0	0	0
0	3.9863	21158000	33821000	0	44473000	74479000	0
0	38.484	3.07E+08	2.1E+08	1.67E+08	62217000	3.66E+08	4.67E+08
0	4.0945	4051100	66621000	30820000	30942000	9918900	1.22E+08
0.00786	0.54975	0	0	0	5633100	5849200	20782000
0	4.7835	39355000	70244000	16670000	4347200	50153000	28959000
0.020533	0.095843	9015000	0	0	0	4621100	56580000
0	24.821	3.85E+08	5.29E+08	8.35E+08	5.3E+08	9.14E+08	1.1E+09
0	14.19	29876000	27748000	18651000	32275000	47803000	1.21E+08
0	94.016	1.13E+09	9.35E+08	1.22E+09	4.43E+08	1.37E+09	2.94E+09
0.003852	0.93578	0	0	0	0	10975000	43317000
0.002467	1.1295	8691700	22076000	32699000	20734000	18619000	0
0	4.0812	4605900	0	0	0	9363900	10822000
0	1.7383	0	0	0	0	0	55154000
0.005206	0.76046	50796000	30813000	57161000	26677000	13556000	87549000
1	-2	0	0	0	28710000	0	0
0	119.21	7.53E+08	5.32E+08	8.19E+08	4.02E+08	1.51E+09	2.89E+09
0	31.441	3.08E+08	4.26E+08	5.16E+08	1.44E+08	6.69E+08	1.42E+09
0.004308	0.89593	8901700	4.94E+08	37863000	96950000	1.37E+08	4.95E+08
0	323.31	1.69E+09	1.31E+09	9.16E+08	4.23E+08	1.33E+09	4.04E+09
0	323.31	4.28E+09	7.81E+09	5.6E+09	1.78E+09	3.89E+09	1.1E+10
0	3.8165	6698800	13298000	17828000	14220000	33229000	1.03E+08
0	14.548	4068700	0	2148800	1844200	27759000	74245000
0	43.67	80809000	45139000	64897000	20336000	1.8E+08	0
0	139.31	9.03E+08	6.11E+08	4.75E+08	2.78E+08	1.2E+09	2.58E+09
0.037657	-0.16887	24750000	0	0	0	22332000	52863000
0	12.397	0	0	0	0	2569200	32671000
0	14.251	26225000	44057000	43760000	41598000	69959000	31036000
0	2.8329	0	0	0	0	4819600	20597000
0	23.807	34889000	50993000	46737000	23183000	0	1.63E+08
0	10.41	29372000	77720000	12825000	0	1.13E+08	2.51E+08
0.014686	0.2142	0	14108000	0	2861500	12081000	0
0	2.9259	26568000	24481000	0	0	30445000	69214000
0	42.971	1.36E+08	1.12E+08	1.21E+08	65909000	2.17E+08	5.2E+08
0.034148	-0.13066	0	80776000	98414000	44426000	0	0
0	32.478	1.73E+08	2.38E+08	3.02E+08	1.52E+08	2.16E+08	5.48E+08
0	2.652	3.89E+08	3.07E+08	2.6E+08	83141000	3.88E+08	3.36E+08
0	44.07	86268000	77408000	46130000	26052000	1.17E+08	2.99E+08
0	17.44	82569000	26760000	0	0	1.07E+08	1.79E+08
0.00388	0.9914	0	0	0	9477200	0	0
0	3.0096	27215000	19810000	29316000	15462000	45763000	1.29E+08
0	60.301	1.54E+08	54285000	56040000	40870000	1.53E+08	4.53E+08
0	1.6543	36073000	31313000	0	0	53480000	1.39E+08
0	14.607	37601000	7076200	0	0	0	66301000
0	3.189	0	16489000	0	11577000	22805000	88080000

0	16.478	25363000	5545800	20298000	12495000	22806000	1.19E+08
0	89.732	3.32E+08	3.29E+08	2.57E+08	1.44E+08	5.72E+08	1.06E+09
0	54.499	1.91E+08	1.43E+08	61445000	25863000	2.43E+08	6.12E+08
0	7.3305	0	18994000	0	8886000	13244000	22378000
0	39.415	35442000	1.29E+08	1.09E+08	63675000	75727000	1.77E+08
0	8.3853	17104000	10219000	15748000	17163000	23352000	75871000
0	23.614	82942000	22429000	0	0	1.32E+08	2.7E+08
0.005189	0.74522	13690000	18821000	29789000	25747000	36721000	72145000
0	17.853	1.15E+08	1.4E+08	1.75E+08	1.3E+08	2.36E+08	7E+08
0	67.226	20801000	0	0	0	0	1.66E+08
0	3.2509	0	0	0	0	0	33330000
0	37.079	0	0	3458800	0	23422000	18810000
0.008696	0.45188	85372000	39021000	31496000	16367000	1.14E+08	0
0	98.172	59432000	87094000	63238000	67126000	2.96E+08	6.04E+08
0	2.2873	51255000	15643000	20480000	0	55410000	1.23E+08
0	323.31	1.09E+09	1.2E+09	7.73E+08	4.26E+08	2.37E+09	4.92E+09
0	165.52	1.25E+09	7.98E+08	6.95E+08	4.33E+08	1.52E+09	2.3E+09
0	7.8251	29617000	60054000	17017000	0	0	0
0	2.4845	94634000	25537000	63147000	3544100	0	1.08E+08
0	45.426	3.61E+08	2.5E+08	1.46E+08	96591000	4.82E+08	7.82E+08
0	140.57	4.57E+08	4.32E+08	3.77E+08	3.55E+08	6.92E+08	1.46E+09
0	13.744	12296000	3725700	0	1526800	1628000	78165000
0	99.495	2.02E+08	1.85E+08	1.33E+08	64970000	2.98E+08	8.3E+08
0.002455	1.0934	5202100	12050000	2683100	5365000	0	20898000
0	62.481	1.71E+08	1.15E+08	1.09E+08	69581000	1.18E+08	4.23E+08
0	30.984	1.51E+08	1.53E+08	1.9E+08	75047000	3.02E+08	6.67E+08
0	119.31	0	2693900	36204000	24514000	50637000	1.32E+08
0	3.4467	74920000	36526000	49039000	15448000	1.06E+08	2.41E+08
0	33.588	81021000	2.39E+08	1.3E+08	93652000	31254000	5.27E+08
0.013839	0.23307	9669700	0	0	0	0	40234000
0	2.0748	0	0	0	633140	0	3569500
0	3.1295	7432300	29192000	2642200	7148100	15923000	57654000
0	8.7975	1.03E+08	36469000	86100000	36658000	1.67E+08	2.82E+08
0	146.82	3.28E+08	4.41E+08	4.88E+08	2.45E+08	5.45E+08	1.29E+09
0	249.49	5.31E+08	4.92E+08	6.36E+08	3.72E+08	7.9E+08	2.44E+09
0	25.904	1.56E+08	1.44E+08	1.13E+08	68267000	1.18E+08	4.08E+08
0	9.7845	60740000	27273000	10195000	33111000	60003000	1.19E+08
0	8.0675	75017000	31140000	42058000	18138000	1.38E+08	1.48E+08
0.011644	0.26516	47678000	44977000	1.11E+08	44206000	89695000	1.57E+08
0	29.42	1.17E+08	2.36E+08	2.75E+08	1.09E+08	1.97E+08	3.91E+08
0	4.0112	0	2205900	0	0	6182000	0
0	2.653	5400400	32068000	8699300	26746000	30614000	74732000
0	2.4548	0	15839000	0	9517400	5115500	55688000
0	3.5376	0	14668000	0	0	0	31588000
0.009515	0.36269	27755000	15167000	7541200	6950600	17598000	0
0.008303	0.52703	5088300	32868000	76922000	49237000	73482000	1.91E+08
0	323.31	1.54E+09	1.3E+09	1.15E+09	5.4E+08	2.3E+09	4.59E+09
0.004327	0.92813	1011600	26138000	6901300	21945000	0	1073400
0	106.53	4.87E+08	3.83E+08	3.02E+08	1.16E+08	7.01E+08	1.27E+09
0	61.859	4.29E+08	2.43E+08	2.29E+08	74981000	2.87E+08	4.82E+08

0	256.85	6.85E+08	5.32E+08	3.13E+08	1.52E+08	1.06E+09	1.9E+09
0	1.484	0	21286000	19011000	0	0	48196000
0	323.31	1.97E+09	1.53E+09	1.07E+09	5.06E+08	2.98E+09	6.91E+09
0.021277	0.059273	0	34943000	0	1.29E+08	0	0
0	70.74	8.83E+08	2.52E+08	2.13E+08	1.39E+08	5.11E+08	9.49E+08
0	3.0225	1.15E+09	5.82E+08	5.74E+08	2.46E+08	9.39E+08	1.88E+09
0	41.95	77820000	14196000	16968000	13356000	86508000	97431000
0	139.39	95097000	49022000	0	0	1.1E+08	48928000
0	4.0058	44102000	24958000	0	14744000	55571000	1.62E+08
0	2.0619	12440000	11018000	1591300	3502400	6046000	55928000
0	151.18	4.29E+08	6.31E+08	6.22E+08	2.44E+08	5.45E+08	2.27E+09
0	10.441	0	2342200	0	1832900	7839500	31929000
0	71.407	1.94E+08	3.27E+08	2.64E+08	70676000	2.22E+08	8.15E+08
0	5.143	20500000	0	0	2771300	37491000	47851000

Material list

Material	Company	Catalog Number	Comments
Reagents and standards			
1,2-diheptadecanoyl-sn-glycero-3-phosphocholine (17:0 PC)	Avanti Polar Lipids	850360P	Internal standard for lipids
13C Sorbitol	Sigma Aldrich	605514	Internal standard for metabolites, ISOTEC® Stable Isotopes
Ampicillin	Sigma Aldrich	A9393-5G	Internal standard for metabolites
Corticosterone	Sigma Aldrich	27840-500MG	Internal standard for metabolites, HPLC grade
Methanol (MeOH)	Biosolve Chemicals	13684102	ULC-MS grade
Methyl tert-butyl ether (MTBE)	Biosolve Chemicals	13890602	HPLC grade
Trypsin/Lys-C mix	Promega	V5072	Enzymatic digestion of proteins
Water	Biosolve Chemicals	23214102	ULC-MS grade
Equipment			
1.5 ml Safe-lock microcentrifuge tubes	Eppendorf	30120086	Used for fractions
2 ml Safe-lock microcentrifuge tubes	Eppendorf	30120094	Used for sample extarction
Balance	Sartorius Corporation	14 557 572	
Fermenter system	Glasbläserei Müller, Berlin, Germany		custom made fermenter of 800ml capacity
Q-exactive HF Orbitrap Mass Spectrometer	Thermo Scientific	IQLAAEGAAPFALGMBFZ	
Refrigerated microcentrifuge	Eppendorf, model 5427R	22620701	
Reversed Phase (RP) Bridged Ethyl Hybrid (BEH) C8 column (10(	Waters, Machester, UK	186002878	Analysis of lipids
RP Charged Surface Hybrid (CSH) column (Waters) with an	Waters, Machester, UK	186007477	Analysis of proteins
RP High Strength Silica (HSS) T3 column (100 mm×2.1 mm cont	Waters, Machester, UK	186003539	Analysis of metabolites
Shaker	Eppendorf Thermomixer 5436	2050-100-05	
Sonicator	USC 300 TH	142-0084	standard preset sonication power at 45kHz
UPLC system	Waters Acquity UPLC system (Waters, Machester, UK)		
Vacuum concentrator	Scan Speed Maxi Vac Alpha Evaporators	7.008.500.002	
Vortex mixer	Vortex-Genie 2, Model G560	SI-0236	
Z2 Coulter Particle Count and Size Analyzer	Beckman Coulter	6605700	particle (cells) volume and number analyser

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Title of Article: A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga Chlamydomonas reinhardtii

Author(s): Umarah Mubeen, Lais Giraldi, Jessica Juppner and Patrick Giavalisco

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Dear Dr. Mubeen,

Your manuscript, JoVE59547 "A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga Chlamydomonas reinhardtii ," has been editorially and peer reviewed, and the following comments need to be addressed. Note that editorial comments address both requirements for video production and formatting of the article for publication. Please track the changes within the manuscript to identify all of the edits.

After revising and uploading your submission, please also upload a separate rebuttal document that addresses each of the editorial and peer review comments individually. Please submit each figure as a vector image file to ensure high resolution throughout production: (.svg, .eps, .ai). If submitting as a .tif or .psd, please ensure that the image is 1920 x 1080 pixels or 300 dpi.

Your revision is due by **Jan 29, 2019**.

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Best,

Bing Wu, Ph.D.
Review Editor
JoVE

Editorial comments:
Changes to be made by the author(s) regarding the manuscript:
1. Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues. The JoVE editor will not copy-edit your manuscript and any errors in the submitted revision may be present in the published version.

Thank you very much for pointing out, we have proof read and incorporated the suggestions, which improved the quality of the manuscript.

2. Please revise lines 49-51, 198-200, 441-447, and 450-456 to avoid previously published text.

The suggested lines have been rephrased/re-written accordingly.

3. Summary: Please revise to clearly describe the protocol and its applications in complete sentences between 10-50 words.

The summary has been updated.

4. Line 86: Please convert Harris, 2009 to a superscripted numbered reference.

Done as suggested in the revised version

5. Please abbreviate liters to L (L, mL, µL) to avoid confusion.

Corrected in the revised version

6. Please include a space between all numerical values and their corresponding units: 15 mL, 37 °C, 60 s; etc.

Corrected in the revised version

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Thank you for the comment, all such examples have been modified accordingly, while the reference to "table of materials" is made as required.

8. Please revise the protocol text to avoid the use of any personal pronouns (e.g., "we", "you", "our" etc.).

We went through the text and removed personal pronouns in the revised version

9. Please add more details to your protocol steps. There should be enough detail in each step to supplement the actions seen in the video so that viewers can easily replicate the protocol. Please ensure you answer the "how" question, i.e., how is the step performed? Alternatively, add references to published material specifying how to perform the protocol action. See examples below.

We thank the editors for emphasizing the clarity and details required to reproduce the protocol. And also taking the effort to indicate the ambiguous steps. We have made the modifications wherever possible to make the text clear.

10. 3.1: Please specify the capacity of the tubes.

Indicated in the revised version.

11. 3.3: Please specify the size of the syringe.

Added in the revised version.

12. Line 132: Please describe how to measure the cell density and cell size. How many time points?

The cell density and size were measured using commercial equipment Z2 Coulter Counter as per vender's instructions. We have added the parameters used for measurement while also referred to the "table of materials" for equipment specifications. Moreover, the detail about time points has also been clarified.

13. 5.5: Please specify the sonication power if you are able.

We thank the editors and all the reviewers to point it out. However, sonication power for this equipment (sonication bath) cannot be controlled, the equipment comes with the constant preset sonication power for the model indicated in the "table of materials".

14. 7.3: Please describe how this is done.

The derivatization procedure for GCMS samples has been previously described in detail in (1), the reference is now added and properly cited in the manuscript. However, we avoided adding details for this step since it has been already described and cited in literature numerous (1122) times.

15. 8.2, 11.9: Please specify centrifugation parameters.

Specification added in the revised version

16. 10.2: Extraction buffer 1 or 2?

We are grateful to the editors for pointing out, since the description in text was indeed vague. In this case neither buffer 1 nor 2 was used rather a protein resuspension buffer was used that is not required for the extraction but only to solubilize the extracted proteins. In the revised version, we have clearly indicated "protein resuspension buffer" and referred to the specific step number describing buffer composition.

17. 10.7: Please describe how digestion is done.

The details of the digestion protocol have been added.

18. Lines 302-314: The Protocol should be made up almost entirely of discrete steps without large paragraphs of text between sections. Please break into steps (in the imperative tense and with no more than 4 sentences for each step).

Thank you for the suggestion. We have gone through the whole manuscript again to take this point into consideration.

19. Lines 318-319: Please provide a reference.

Citation added in the revised version

20. Please combine some of the shorter Protocol steps so that individual steps contain 2-3 actions and maximum of 4 sentences per step.

Please see the response to comment 18.

21. After you have made all the recommended changes to your protocol (listed above), please highlight 2.75 pages or less of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol.

Suggestion followed accordingly

22. Please highlight complete sentences (not parts of sentences). Please ensure that the highlighted part of the step includes at least one action that is written in imperative tense. Notes cannot usually be filmed and should be excluded from the highlighting.

Correction made in the revised version

23. Please include all relevant details that are required to perform the step in the highlighting. For example: If step 2.5 is highlighted for filming and the details of how to perform the step are given in steps 2.5.1 and 2.5.2, then the sub-steps where the details are provided must be highlighted.

Highlighted accordingly in the revised version

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The link to the editorial policy has been added along with the printable copyrights license. Also the citations in the figure legends have been rechecked.

25. Figure 1: Please apply superscript formatting the number “3” in the unit “µm3”.

Corrected in the revised version

26. Figure 2: Please change the unit µl to µL. Please also fix the text that is cut off in the bottom row (i.e., Glucose concentration measurement).

Corrected in the revised version

27. Figure 4B: Please change the unit ug to µg.

Corrected in the revised version

28. Figure S1: Please change the unit ml to mL.

Corrected in the revised version

29. Table of Materials: Please sort the items in alphabetical order according to the name of material/equipment.

Sorted in the revised version

30. References: Please do not abbreviate journal titles.

Reference library updated accordingly

Reviewers' comments:

we are grateful to all the reviewers for their effort to critically evaluate the manuscript and helpful comments. Below we address the comments one by one.

Reviewer #1:

Manuscript Summary:
The protocol presents a detailed instructions for analysis of different cell components such as lipids, chlorophyll, proteins, starch and other metabolites from a single sample of cells of unicellular green alga Chlamydomonas reinhardtii. The protocol is properly introduced and discussed and it will be of use to other people in the field either specifically dealing with Chlamydomonas reinhardtii or with other algae.

Major Concerns:
I have no major concerns.

Minor Concerns:
p. 6 l. 185 Are the conditions of sonication crucial?, e. g. number of cycles, their duration?

The sonication power for this equipment (sonication bath) cannot be controlled, the equipment comes with the constant preset sonication power for the model indicated in the "table of materials".

p. 6 l. 207 Is there a difference in the storage method or are they equivalent?

Actually, it is difficult to conclusively suggest without a comparative assessment of these storage conditions on the stability of lipids and metabolites. However, both storage conditions had been used in our lab without any noticeable impact on the quality of the data. Nevertheless, it can be argued that most metabolites and lipids would have lower risk of being oxidized in absence of water. Therefore, to avoid confusion we have now changed the recommended storage setting to only "dry under vacuum followed by storage at -80°C ….".

p. 7 l. 250 Is this correct? The figure 2 states 900 ul.

We thank the reviewer for pointing out the mistake, we have corrected the volume.

p. 9 l. 323 (steps 11.1 and 11.2) This step (11.2) and the previous one are not obivous. Is the volume of 80% ethanol washing important? What was the volume used? Was some centrifugation step involved? Is the incubation step with the ethanol still on the pellet?

We have rephrased and clearly stated these steps in the protocol now.

p. 10 l. 353 Unclear, please re-phrase.
We have removed these equations and explained the principle instead.

Reviewer #2:

Manuscript Summary:
The manuscript titled "A Multi-omics extraction method for the in-depth analysis of synchronized cultures of the green alga Chlamydomonas reinhardtii" is an extensive protocol for simultaneous extraction of chlorophyll, lipids, metabolites, proteins, and starch from a single sample. As the authors mention, the ability to perform all of these analyses from a single sample is important for improving our understanding of molecular functions without requiring independent samples and protocols, potentially adding time and variability. This endeavor, in addition to the synchronized cultures, result in an extraction method capable of great potential impact upon addressing the following concerns, with specific emphasis on improving the proteomic aspect of this method.

Major Concerns:

1. At the end of the introduction, the authors mention the addition of data on proteomic samples that would build on the metabolomic and lipidomic data disseminated in reference 10. While figure 4A highlights molecular functional enrichment from proteins identified, the addition of a supplemental table similar to tables S1 and S2 (from ref 10) would greatly improve the understanding of the proteomics performed through this multi-omic extraction protocol.
a. For example, the representative results mention identification of 2500 proteins with functional enrichment information but clarification on data analysis pipeline used to get this number would be helpful (eg only proteins with >2 peptides, score conditions etc…) potentially in the format of a table similar to table 1.

We have taken this into account and added the table listing the identified proteins.

2. In the protocol, step 10.1, the protein buffer used contains 5M urea, 2mM thiourea, 2% CHAPs, and 15 mM DTT. Is this correct? Typically, when added to protein extraction buffer, 2M thiourea is used however it was unclear when looking back to ref. 14 which one you meant ("30% w/w of thiourea were added to the homogenate under continued stirring and left for incubation for an additional 45 min at room temperature"). Additionally, a 2% CHAPs amount is very high for in- solution protocols with common detergent removal from peptides protocols highlighting a maximum 1% CHAPs (https://www.thermofisher.com/us/en/home/life-science/protein-biology/protein-mass-spectrometry-analysis/sample-prep-mass-spectrometry/detergent-removal-peptides.html). Was there significant CHAPs peaks in your runs? The addition of a note on detergent contamination and compatibility for nanoESI mass spectrometry might be useful to readers following this protocol.

We are extremely grateful to the reviewer to point this out. We apologize for the mistakes in the description of protein resuspension buffer composition. We have carefully rechecked the buffer used for this protocol and updated the buffer conditions as well as the other steps in the protein digestion protocol.

3. In step 10.10, the gradient for using the nano-UPLC is explained extensively however the type of mass spectrometer and parameters used for detection is not highlighted and should be included in the text.
We have added the detail for MS analysis in the text and referred to the type of mass spectrometer in the "table of materials".

Minor Concerns:

4. Step 9.2 mentions use of UV-VIS spectrometer, should say spectrophotometer.

Corrected in the revised version

5. Step 10.10 states that the UPLC gradient is in Table 1 but the parameters on page 24-25 mis-name this Table 3.

Thank you, corrected

Reviewer #3:

Manuscript Summary:
The authors provide a step by step protocol that enables the generation of multi omics data (proteomics, metabolomics, lipids, starch and chlorophyll) from a single sample. Application was shown using Chlamydomonas samples taken from synchronous grown cells.

Major Concerns:
While it is intriguing that one can measure multiple layers from a single sample, it would be very valuable to know more about potential trade-offs. The main question is, how does obtained data relate in terms of quality to data that would have been generated using the whole sample and a respective standard protocol. Can the authors comment on this, please?

We are thankful for the comment. Indeed the protocol is only useful if it does not compromise the recovery of individual molecular species. A systematic comparison of the extraction efficiency has been previously described (2), where extraction of metabolites was carried out using 90% Methanol (MeOH) and compared with the biphasic buffer used in the protocol (2). As far as proteins and starch are concerned, one would need to get rid of the unwanted molecules (i.e. lipids, metabolites) to start the digestion of a cleaner pellet. The presented protocol offers the precipitation of a solid pellet of proteins and starch while simultaneously offering efficient recovery of the lipids and metabolites.

Minor Concerns:
Page 4, line 85. Please specify sonication conditions.
Figure 1: It would be helpful if timing and potential break points would be indicated in this Figure.

We apologise for the ambiguity, figure 1 depicts changes in the cell size across 24 h cell cycle, while the time points are indicated next to each plot.

Page 7, line 321. Since step 11.1 starts with the solid pellet from the protein extraction, I found it confusing to call it frozen cell pellet here. Solid pellet might be a better choice.

Correction made in the revised version.

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1. Roessner U, Wagner C, Kopka J, Trethewey RN, Willmitzer L. Technical advance: simultaneous analysis of metabolites in potato tuber by gas chromatography-mass spectrometry. The Plant journal : for cell and molecular biology. 2000;23(1):131-42.
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Jessica Jüppner, Umarah Mubeen, Andrea Leisse, et al
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10
Requestor Location
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