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TITLE:

Proteomic Profile of EPS-Urine through FASP Digestion and Data-Independent Analysis

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SUMMARY:

Here, we present an optimized on-filter digestion protocol with detailed information about the following: protein digestion, peptide purification and data independent acquisition analysis. This strategy is applied to the analysis of expressed prostatic secretions-urine samples and allows high proteome coverage and low missing value label-free profiling of the urinary proteome.

ABSTRACT:

Filter-aided sample protocol (FASP) is widely used for proteomics sample preparation because it allows to concentrate diluted samples and it is compatible with a wide variety of detergents. Bottom-up proteomics workflows like FASP increasingly rely on LC-MS/MS methods performed in data-independent analysis (DIA) mode, a scanning method that allows deep proteome coverage and low incidence of missing values.

In this report, we will provide the details of a workflow that combines a FASP protocol, a double StageTip purification step and LC-MS/MS in DIA mode for urinary proteome mapping. As a model sample, we analyzed expressed prostatic secretions (EPS)-urine, a sample collected after a digital rectal exam (DRE), which is of interest in prostate cancer biomarker discovery studies.

INTRODUCTION:

The constant evolution of proteomic technologies promises to have a considerable impact in helping disease diagnosis and prediction of response to treatment by providing high resolution

maps of key molecular effectors present in a wide variety of samples such as tissues and biofluids. From an analytical point of view, urine offers several advantages such as ease of collection and major stability of the proteome with respect to others biofluids¹. Proteomic analysis of urine is of special interest in biomarker discovery studies on urological cancers, since it allows noninvasive sampling in proximity to the tissues of interest². In particular, a sample that seems to be promising for studying prostate-related pathologies is the EPS-urine^{3,4} (i.e., a urine sample collected after a digital rectal exam (DRE)). This latter operation prior to sample collection enriches urine with prostate specific proteins. EPS-urine is a good candidate to investigate disorders related to the prostate gland⁵ including prostate cancer (PCa), since through DRE, proteins secreted by the tumor can be poured into the urine sample, increasing the chance of detecting cancer tissue-specific proteins.

A crucial role in allowing detection and quantification of potential protein biomarkers is played by mass spectrometry (MS). Over the last two decades, MS-based protocols for proteomic analysis have allowed an ever-increasing number of proteins to be detected in a single LC-MS/MS run thanks to continuous improvements in MS instrumentation and in data analysis software⁶.

MS-based proteomic sample preparation generally involves enzymatic digestion of the protein mixture, which can be achieved via a wide variety of protocols such as: in-solution digestion, MStern blotting⁷, suspension trapping (S-trap)⁸, solid-phase-enhanced sample preparation (SP3)⁹, in-StageTip digestion¹⁰ and filter aided sample preparation (FASP)¹¹. All protocols can be used for urinary proteomics, even though results may vary with respect to the number of identified proteins and peptides and in terms of reproducibility¹².

In this work, our attention was focused on the analysis of EPS-urine by the FASP protocol. The FASP protocol was originally designed to analyze proteins extracted from tissues and cell cultures, but its use was then expanded to the analysis of other sample types, such as urine¹³. With respect to straightforward in-solution digestion FASP is a more flexible proteomic approach¹⁴, since by achieving effective removal of detergents and other contaminants such as salts from the protein mixture before enzymatic digestion¹⁵, it allows the choice of optimal protein solubilization conditions. Moreover, an additional characteristic of FASP is that it provides a means for sample concentration. This is of particular interest for urinary proteomic analysis, because it allows to start from relatively large sample volumes (hundreds of microliters). In the light of the potential of the FASP protocol, several studies have focused the attention on workflow automation, with the aim of reducing experimental variability and processing an elevated number of samples in parallel¹⁶.

In our workflow, FASP is followed by LC-MS/MS acquisition in data-independent analysis (DIA), which provides high proteome coverage, good quantitative precision and low incidence of missing values. The DIA approach is a sensitive method where all ions are selected for MS/MS events, opposite to what happens in data-dependent analysis (DDA) where only ions with the highest intensity are fragmented. The mass spectrometer, operating in DIA mode, performs scan cycles with different isolation width covering the whole m/z precursor range. This approach allows to reproducibly detect a high number of peptides per unit time, providing a proteomics

snapshot of the sample¹⁷. Moreover, data generated by DIA have another interesting characteristic: the possibility of *a posteriori* analysis¹⁸. DIA data are more complex than those obtained by DDA, because MS/MS spectra in DIA result from the co-isolation of several precursor ions within each *m/z* window¹⁹. Disentangling the composite MS/MS spectra into distinct and specific peptide signals is achieved by using two fundamental elements: a spectral library and a dedicated software for data analysis. The spectral library is generated by a data-dependent experiment, usually involving peptide fractionation to maximize proteome coverage, which provides a list of thousands of experimentally determined precursor ions and MS/MS spectra of peptides detectable in the sample under consideration. The data analysis software, instead, uses the information contained in the spectral library to interpret the DIA data by generating specific extracted ion chromatograms which allow peptide detection and quantification. While library-free DIA data analysis is now feasible, library-based DIA still provides better results in terms of proteome coverage²⁰.

The sample preparation protocol here described (**Figure 1**) consists of the following steps: a centrifugation step (to remove cell debris), FASP digestion, StageTip purification²¹, quantification of proteins and DIA analysis. This protocol has been designed for the analysis of EPS-urine in the context of prostate cancer biomarker discovery, but it can be applied to proteomic analysis of any urine sample.

PROTOCOL:

The study was approved by the Institutional Ethical Committee of the Magna Graecia University of Catanzaro, RP 41/2018. Written informed consent was obtained from all patients enrolled in the study.

1. Sample preparation

1.1 Centrifuge EPS-urine samples within 2 h of collection at 2,100 x *g* for 10 minutes at room temperature (RT). Store the supernatant at -80 °C until use.

2. Sample thawing

2.1 Transfer the sample from -80 °C to -20 °C the day before digestion.

2.2 Prior to sample processing, transfer the sample for 15-20 minutes at 4 °C and then at RT.

3. Reagent preparation for FASP

3.1 On the same day, prepare the following solutions: urea buffer, 50 mM iodoacetamide (IAA) in urea buffer, 100 mM triethylammonium bicarbonate and 500 mM dithiothreitol (DTT).

3.2 Prepare urea buffer (urea 8 M, 100 mM Tris-HCl pH 8): for 10 mL, weigh 4,800 mg of urea and dissolve it in the appropriate amount of HPLC water after adding 1 mL of 1 M Tris pH 8. A

volume of 800 μ L of urea is needed for each sample.

3.3 Prepare 500 mM dithiothreitol (DTT): dissolve 38.5 mg of DTT in 500 μ L of HPLC water. For each sample, 66.7 μ L of DTT are needed.

3.4 Prepare 50 mM IAA in Urea Buffer: dissolve 9.25 mg of IAA in 1 mL of urea buffer. For each sample 50 μ L of IAA are needed.

3.5 Prepare 50 mM triethylammonium bicarbonate (TEAB). Add 150 μ L of 1 M TEAB to 2.7 mL of HPLC water. For each sample 460 μ L of TEAB are needed.

3.6 Prepare a solution of trypsin (100 ng/ μ L) in HPLC water. This solution can be stored at -80 $^{\circ}$ C and thawed immediately before use. For each sample, 2 μ L (200 ng) are needed.

4. Protein digestion by FASP

4.1 Dilute 500 μ L of each EPS-urine sample with 66.7 μ L of 10% (w/v) sodium dodecyl sulfate (SDS), 66.7 μ L of 500 mM DTT and 33.3 μ L of 1 M Tris pH 8 to solubilize proteins and to reduce disulphide bonds. Incubate 10 minutes at 95 $^{\circ}$ C with gentle shaking.

4.2 Add 300 μ L of diluted EPS-urine sample on the filter unit (10 kDa) and centrifuge at 14,000 x *g* for 20 minutes.

4.3 Add 200 μ L of urea buffer to the filter and centrifuge at 14,000 x *g* for 15 minutes. Repeat this step and then discard the flow-through.

4.4 Add 50 μ L of IAA solution and centrifuge at 6,000 x *g* for 25 minutes.

4.5 Add 200 μ L of urea buffer and centrifuge at 14,000 x *g* for 20 minutes. Repeat this step and then discard the flow-through.

4.6 Add 200 μ L of 50 mM triethylammonium bicarbonate buffer (TEAB) and centrifuge at 14,000 x *g* for 20 minutes. Repeat this step.

4.7 Transfer the filter unit into a new collection tube.

4.8 Add 60 μ L of 50 mM TEAB buffer and 200 ng of trypsin and incubate the sample in a thermo-mixer at 37 $^{\circ}$ C overnight.

NOTE: To avoid sample evaporation during overnight incubation, wrap each filter unit with a layer of aluminum foil and then a layer of parafilm.

4.9 After trypsin incubation, add 140 μ L of water and centrifuge the vial at 14,000 x *g* for 25 minutes to collect the volume of digest (180-200 μ L).

5. Reagent preparation for SCX purification

5.1 Prepare 1 mL of wash 1 (0.5% formic acid (FA) and 20% acetonitrile (ACN)) as follows: add 50 μ L of 10% FA and 200 μ L of 100% ACN to 750 μ L of HPLC water. For each sample, 100 μ L of wash 1 are needed.

5.2 Prepare 1.5 mL of wash 2 (0.5% FA and 80% of ACN) as follows: add 75 μ L of 10 % FA and 1.2 mL of 100% ACN to 225 μ L of HPLC water. For each sample 190 μ L of wash 2 are needed.

5.3 Prepare 100 μ L of eluting solution (500 mM ammonium acetate (AA) and 20% of ACN): add 25 μ L of 2 M AA and 20 μ L of 100% ACN to 55 μ L of HPLC water.

5.4 Prepare StageTips as follows.

5.4.1. Pack a 200 μ L pipette tip with a layer of SCX resin using a blunt-ended syringe needle (gauge 16). Insert the StageTip into a microcentrifuge lid that has been previously pierced in order to accommodate the microcolumn.

5.4.2. Assemble the lid onto a 2 mL microcentrifuge from which the original lid was removed. The micro-SPE centrifugal device just assembled should fit into a benchtop centrifuge. Since perforated lids are tedious to prepare, they can be utilized multiple times.

6. SCX purification

6.1 Dilute 30 μ L of each sample to 120 μ L using wash 2.

6.2 Condition the StageTip by adding 50 μ L of wash 1 on top of the extraction resin and centrifuge at 400 x *g* for 2 minutes. Since flow resistance depends on how strongly the extraction resin was packed into the pipette tip, centrifuge speed may need to be adjusted in order to obtain a flow rate of 20-30 μ L/min. Try not to leave the tip dry during sample loading and washing.

6.3 Equilibrate the StageTip with 50 μ L of wash 2 and centrifuge at 400 x *g* for 2 minutes.

6.4 Load the diluted sample (120 μ L) using a lower spin speed.

6.5 Wash the StageTip with 50 μ L of wash 2 and centrifuge at 400 x *g* for 2 minutes. Repeat with 50 μ L of wash 1.

NOTE: After this wash the resin must be completely dry.

6.6 Elute peptide mixture with 7 μ L of eluate solution (500 mM ammonium acetate (AA) and

20% of ACN) slowly using a lower spin speed.

6.7 Add 27 μL of 0.1% FA to dilute AA and to obtain a sample for LC-MS/MS preliminary injection. The final dilution to 34 μL will result into a 1:1 volumetric ratio between urine and peptide solution (1 μL of purified digest will correspond to 1 μL of original urine sample).

7. Protein quantification by external standard using DDA analysis (Figure 2)

7.1 Determine protein amount in samples by injecting 2 μL of the resulting peptide digest in LC-MS/MS and interpolating the resulting total peptide area with a calibration curve built as follows:

7.2 Prepare five different HeLa digest solutions (1 ng/ μL , 2.5 ng/ μL , 7.5 ng/ μL , 25 ng/ μL , 75 ng/ μL) using a HeLa digest stock (100 $\mu\text{g}/\mu\text{L}$).

7.3 Inject each HeLa solution in duplicate (2 μL).

7.4 Set the LC-MS/MS method.

7.4.1. Inject 2 μL of the five HeLa peptide mixtures and separate peptides through a linear gradient of 75 minutes at a flow rate of 230 nL/minute on a 15 cm, 75 μm i.d column packed with 3 μm C18 silica particles. Use a binary gradient constituted by mobile phase A (0.1% FA, 2% ACN) and mobile phase B (0.1% FA and 80% of ACN).

7.4.2. Perform gradient elution by increasing mobile phase B content from 6% to 42% in 60 minutes and from 42% to 100% in additional 8 minutes. Maintain for 5 minutes 100% B and then move back to 0% B in two minutes.

7.4.3. Operate in DDA mode using a top-12 method and set MS full scan range at 350-1800 m/z , resolution 70,000, ACG target $1e6$ and maximum injection time 50 ms. Set the mass window for precursor ion isolation at 1.6 m/z , resolution 35,000, ACG target $1e5$, maximum injection time 120 ms, HCD fragmentation at of 25 NCE (normalized collision energy) and dynamic exclusion 15 seconds.

7.5 Analyze raw files using Sequest as search engine, and the HUMAN Uniprot Complete protein sequence as the database. In the experiments presented here, the database was downloaded on March 2016 and contained 42.013 sequences.

7.5.1. Use the following settings: MS tolerance 15 ppm, MS/MS tolerance 0.02 Da, trypsin as enzyme by setting two missed cleavage sites. Set the carbamidomethylation of lysine, serine, threonine, tyrosine (+57.021) and the oxidation of methionines as dynamic modifications and the carbamidomethylation of cysteines (+57.021) as static modifications. Use the cut-off of false discovery rate (FDR) for peptides and proteins identification to 0.01 and filter out by percolator.

7.5.2. Calculate the peak area for all MS1 peptide signals. Calculate the total area of the peptides.

7.6 Inject 2 μL of peptide mixtures obtained from EPS-urine samples using the same LC-MS/MS method used for the HeLa samples and analyze the raw file using the same parameters used for HeLa data processing.

7.7 Calculate total intensity of peptide signals by summing up area values of all identified peptides and interpolate the external standard curve. This will provide an acceptable estimation of peptide amount present in the EPS-urine protein digest.

8. Reagent preparation for C18 StageTip protocol

8.1. Prepare 500 μL of solution A (0.1% Trifluoroacetic acid (TFA), 50% ACN): add 250 μL of 100% ACN and 10 μL of 5% TFA to 240 μL of HPLC water.

8.2. Prepare 2 mL of solution B (0.1 % TFA): add 40 μL of 5% TFA to 1960 μL of HPLC water.

8.3. Prepare 100 μL of eluting solution (0.1% FA, 50% ACN): add 1 μL of 10% FA and 50 μL of 100% ACN to 49 μL of HPLC water.

8.4. Prepare StageTips as previously described. In this case, C18 extraction disks are used.

9. SCX/C18 StageTip protocol

NOTE: Purify EPS-urine digests by C18 StageTip protocol to remove salts.

9.1 Start from 2 μg of peptides (as quantified by the preliminary injection). Dilute the digest solution 4-fold in wash 2 SCX and proceed as described above (in section "SCX purification"). Elute the peptide mixture with 7 μL of eluate solution (500 mM ammonium acetate (AA) and 20% of ACN) slowly using a lower spin speed (5 $\mu\text{L}/\text{min}$ flow rate).

9.2 Acidify the SCX eluate with 150 μL of 0.1% of trifluoroacetic acid (TFA) in order to achieve a pH lower than 3 and a concentration of organic solvent below 5%.

9.3 Condition the C18 StageTip with 50 μL of solution A and centrifuge at 400 x g for 2 minutes. Equilibrate C18 StageTip with 50 μL of solution B and centrifuge at 400 x g for 2 minutes.

9.4 Load the sample on the stage-tip slowly using a lower spin speed.

9.5 Wash C18 StageTip with 50 μL of solution B and centrifuge.

9.6 Slowly elute the peptide mixture with 10 μL of elution solution using a lower spin speed.

9.7 Dry the eluate (10 μ L) at 30 °C in a vacuum centrifuge for 3 minutes. Add 47 μ L of 0.1% FA. Expected peptide concentration will be 40 ng/ μ L. Analyze by LC-MS/MS in DIA mode.

10. DIA Analysis (Figure 3)

10.1. nanoLC separation: Separate the peptide mixture using a linear gradient of 140 minutes at a flow rate of 230 nL/min on a 15 cm, 75 μ m ID column packed with 3 μ m C18 silica particles.

10.1.1. Perform gradient elution at 230 nL/minute flow rate and increase mobile phase B content from 3% to 25% in 90 minutes, then from 25% to 40% in 30 minutes and finally from 40% to 100% in 8 minutes.

10.1.2. After 10 minutes at 100% B, equilibrate the column with mobile phase A for 15 min.

10.2. Mass spectrometric parameters: perform DIA analysis using a method employing the following scan cycle: (i) a full scan MS event at a resolution of 17,500 (AGC target 1e6, maximum injection time 50 ms) followed by (ii) 20 windows at 20 m/z isolation width, starting from m/z 350, (ii) 5 windows at 50 m/z isolation width and (iv) 1 window at 200 m/z isolation width, ending the scan range of DIA at 1200 m/z . Perform DIA scans at resolution 35,000 (AGC target 5e5, maximum injection time 120 ms and 25 NCE).

11. High- pH reversed phase C18 fractionation for library generation

NOTE: Pool EPS-urine representative samples in an amount of higher than 10 μ g in order to build a data-dependent library for DIA analysis by the following procedure:

11.1 Acidify the peptide mixture (11 μ g) by 0.2% of TFA and load the resulting solution onto a C18 StageTip packed with two layers of extraction disks to allow higher capacity. We estimated the loading capacity of a single micro disk (from a 16 gauge syringe needle) to be in the 5-10 μ g range.

11.2 Condition and equilibrate stationary phase as already described for C18 purification.

11.3 Carry out peptide fractionation by stepwise elution (n=10) from high pH reversed phase C18 using elution solutions containing 0.2% of ammonium hydroxide, 10 mM TEAB, and increasing v/v concentrations of ACN (4%, 8%, 12%, 16%, 20%, 24%, 28%, 32%, 40%, 80%).

11.4 Analyze the 10 fractions using the same chromatographic parameters of the DIA method. Operate the mass spectrometer in DDA mode using the settings previously adopted for the preliminary analysis (see "Protein quantification by external standard using DDA analysis").

12. Data analysis

12.1 Generate the spectral library by importing the protein identification results obtained from

the DDA LC-MS/MS experiments of high-reversed phase C18 fractionation in a software dedicated to DIA analysis.

12.2 Set the minimum and maximum number of fragment ions used for identification and quantification to 3 and 6, respectively. Filter the obtained results by a Q-value of 0.01.

12.3 Import DIA raw files and associate to each raw file the same FASTA file used for creating the spectral library.

12.4 Set the minimum and maximum number of unique peptides used for protein quantification to 1 and 10, respectively.

12.5 Calculate the intensity for each protein by summing fragment ion peak area.

12.6 Generate a matrix with the intensity of the quantified proteins in each sample.

REPRESENTATIVE RESULTS:

This protocol for urinary proteomic analysis includes the following steps: FASP digestion, estimation of protein amount via external standard calibration, double StageTip purification (SCX and C₁₈), and LC-MS/MS analysis in DIA mode.

After protein digestion, preliminary injections are performed after StageTip SCX purification of the resulting peptides. LC-MS/MS raw files are processed to obtain the number of identified peptides, the number of identified proteins and the area of detected peptides. The total area obtained by summing up all identified peptides is used to estimate protein content via interpolation to an external standard: a HeLa protein digest injected at five different amounts (2, 5, 15, 50, 150 ng, respectively). The protein amount for the six samples analyzed in this study varied from sample to sample, showing an average value of 78 ng/μL.

After protein estimation, 2 μg of digested proteins from each sample are purified by sequential SCX and C₁₈ StageTip before DIA analysis. The spectral library for searching DIA data is created after high-pH reversed-phase fractionation and DDA LC-MS/MS analysis of a representative sample (e.g., a sample pool). Using the parameters described above, we have identified and quantified, cumulatively, 2387 protein groups in the six EPS-urine samples under consideration (**Supplementary Table 1** and **Figure 4**).

In order to evaluate from a qualitative point of view the relevance of the list of identified and quantified proteins, the obtained matrix was compared to a list of 624 proteins previously identified in direct- EPS²², a sample collected in a more invasive procedure, which has proven to be a source of interesting candidate prostate cancer biomarkers. In total, 508 out of 624 proteins were successfully detected by our FASP/DIA protocol on EPS-urine.

Figure 1: Proteomic workflow.

Figure 2: Representation of our experimental design for protein quantification based on external standard (HeLa digest).

Figure 3: Key steps of DIA analysis: (i) elaboration of the spectral library through high-pH reversed-phase fractionation and DDA analysis, (ii) sample analysis using the DIA approach, (iii) data analysis by Spectronaut.

Figure 4: Ranked plot for the detected EPS-urinary proteins. A few selected hits are labelled.

Supplementary Table 1: Representative table of quantified proteins in six EPS-urine samples in Spectronaut.

DISCUSSION:

In this work, a strategy for analyzing EPS-urine samples is presented. The FASP protocol is an ideal choice for urinary proteomics because it allows sample concentration before enzymatic digestion. In fact, using this workflow, several hundreds of microliters of urine can be loaded on a single filter and processed. Moreover, on-filter digestion offers relative freedom in the choice of denaturation conditions. In our work, protein denaturation is achieved by diluting urine samples in a buffer containing Tris, SDS and DTT (final concentration: 100 mM Tris, 1% SDS, 50 mM DTT). Proteins are efficiently denatured immediately after thawing the sample, in order to avoid unwanted degradation by active proteases. The original FASP protocol has been improved by increasing the volume of washes from 100 μ L to 200 μ L. In this way, better removal of residues, especially detergents from the filter, is achieved.

After enzymatic digestion, protein estimation by external standard using a fast LC-MS/MS, data-dependent method is performed before the last steps of the protocol, which comprise double StageTip purification and LC-MS/MS analysis in DIA mode, on equal starting material for all samples (2 μ g).

The versatility of FASP is associated with the DIA approach, a sensitive method providing a low number of missing values¹⁷. In our work, 2387 proteins were identified and quantified, thus enabling a detailed proteomic profile of EPS-urine to be drawn. The identification and quantification of 2387 proteins was possible through the generation of a rich spectral library, obtained *via* high-pH reversed fractionation of peptides, and by our DIA method, directed at a wide *m/z* precursor range. This workflow identified over 80% of proteins previously found in direct-EPS analysis, demonstrating that a considerable fraction of the EPS-urinary proteome is indeed derived from expressed prostatic secretions, thus is a rich source of prostate tissue-specific proteins²⁶.

In conclusion, our experimental design couples the versatility of FASP with the sensitivity of DIA in order to obtain a rich map of the urinary proteome. This strategy is recommended for analyzing EPS-urine samples, but its use can be extended to urinary proteomics in general, or even to other sample types.

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DISCLOSURES:

All authors declare no conflict of interest.

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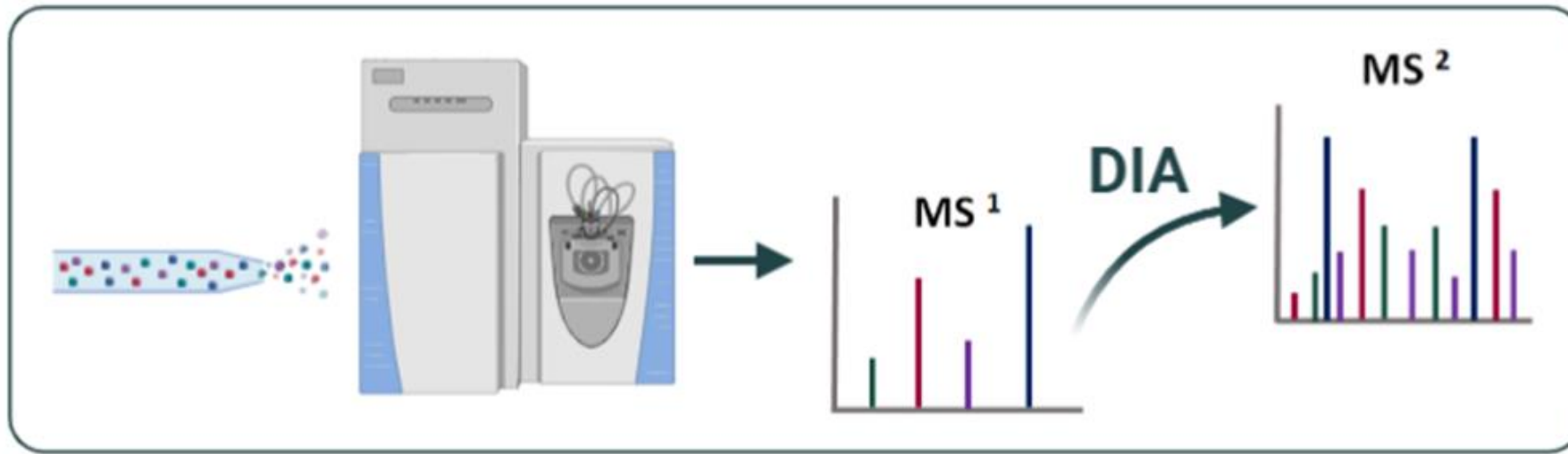
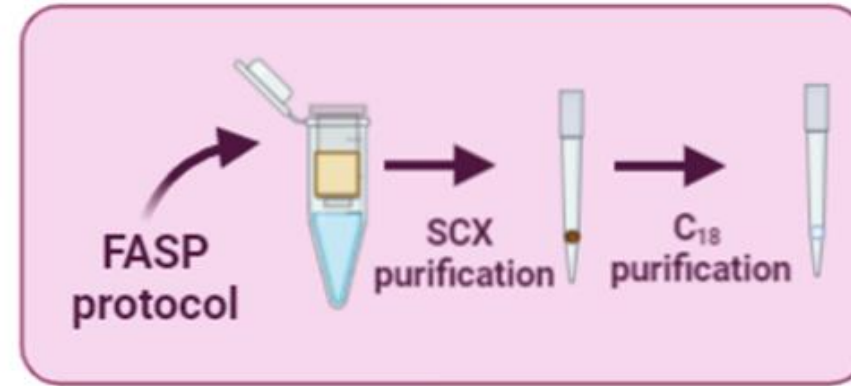
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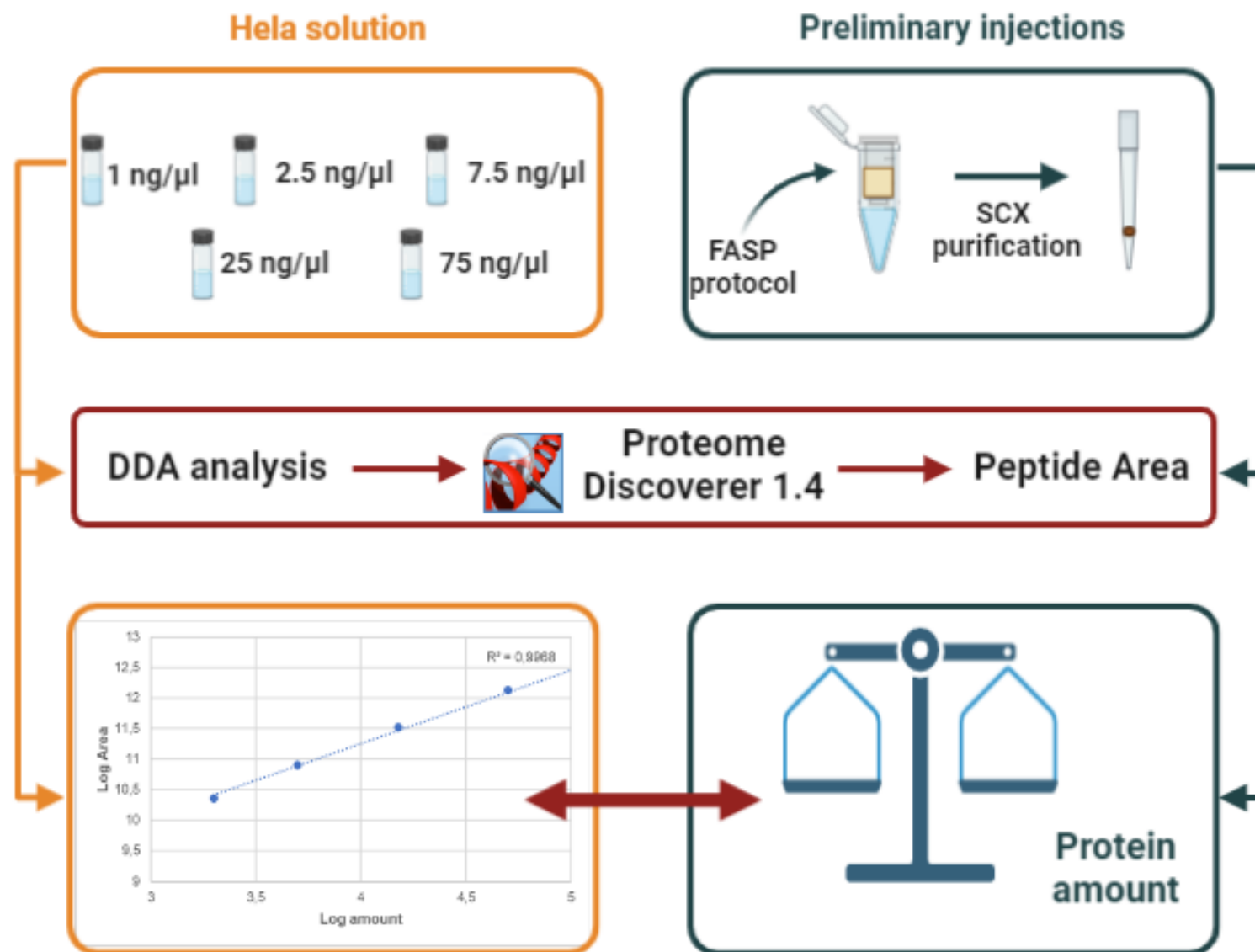
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Sample preparation



Protein digestion and peptides purification





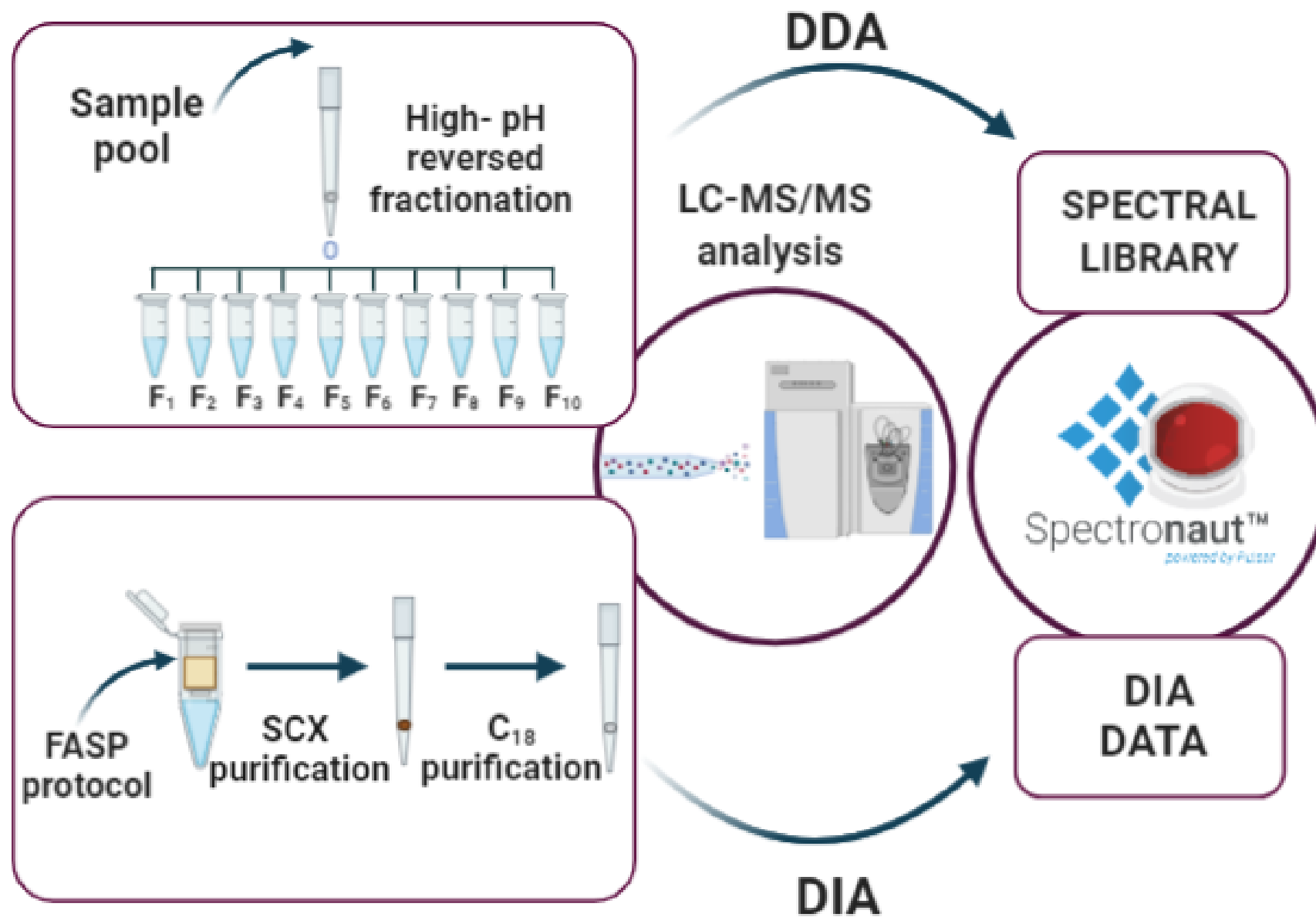
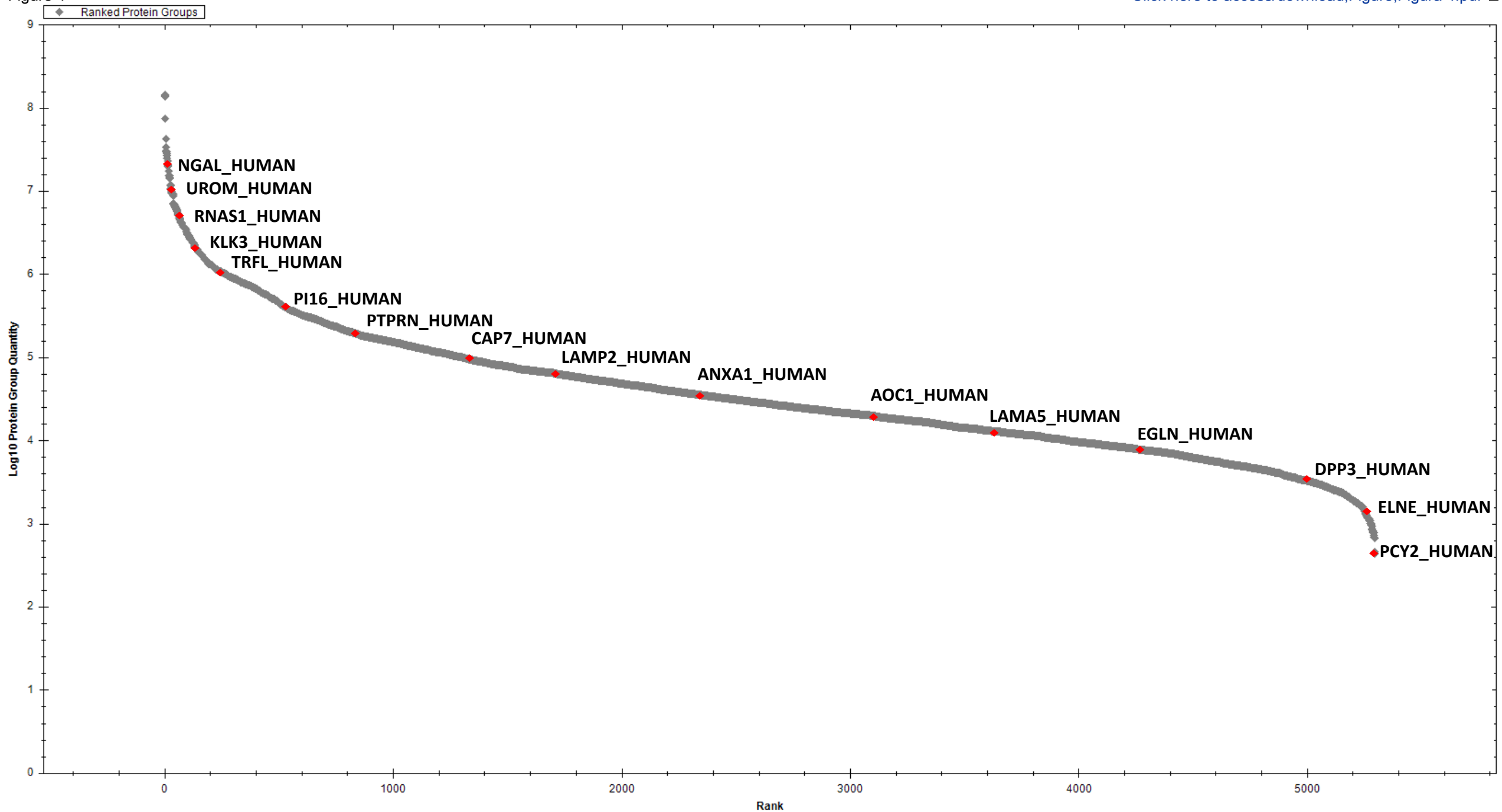


Figure 4



Name of Material/ Equipment	Company	Catalog Number	Comments/Description
1 M Tris HCL pH 8.0	Lonza	51238	
2-iodoacetamide for synthesis	Merck	8047440100	
Acetonitrile for HPLC LC-MS grade	VWR	83640.290	
Ammonium acetate	Fluka	9690	
ammonium hydroxide solution	Sigma	30501	
ammonium hydroxide volumetric standard, 5N solution in water	Merck	318612-500ML	
Dithiothreitol	Amresco	0281-25G	
Empore Cation 47mm Extraction Disks	Microcolumn	2251	
Empore Disk C18	Varian	12145004	
Formic acid optima	Fisher Scientific	A117-50	
Hela Protein Digest Standard	Fisher Scientific	88329	
Microcon-10kDa Centrifugal Filter Unit with Ultracel-10 membrane	MERCK	MRCPRT010	
sodium dodecyl sulfate solution	Merck	71736-500ML	
Thiethylammonium bicarbonate buffer	Merck	T7408-100ML	
trifluoroacetic acid	Riedel-de Haën	34957	
Trypsin from porcine pancreas	Merck	T6567-1MG	
Urea	Merck	U6504-500G	
Water HPLC gradient grade	Fisher Scientific	W/0106/17	
Proteome Discoverer 1,4 Spectronaut 14.0	Thermo Fisher Scientific Biognosys		

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[Best regards,](#)

[Marco Gaspari](#)

TITLE:

Proteomic Profile of EPS-Urine through FASP Digestion and Data-Independent Analysis

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SUMMARY:

Here, we present an optimized on-filter digestion protocol with detailed information about the following: protein digestion, peptide purification and data independent acquisition analysis. This strategy is applied to the analysis of expressed prostatic secretions-urine [analysis-samples](#) and allows high proteome coverage and low missing value label-free profiling of the urinary proteome.

ABSTRACT:

~~F~~A-filter-aided sample protocol (FASP) is widely used for proteomics sample preparation because it allows [to concentrate](#) ~~concentration of~~ diluted samples and it is compatible with a wide variety of detergents. Bottom-up proteomics workflows like FASP increasingly rely on LC-MS/MS [methods](#) performed in data-independent analysis (DIA) mode, a scanning method that allows

deep proteome coverage and low incidence of missing values.

In this report, we will provide the details of a workflow that combines a FASP protocol, a double StageTip purification step and LC-MS/MS in DIA mode for urinary proteome mapping. As a model sample, we analyzed expressed prostatic secretions (EPS)-urine, a sample collected after a digital rectal exam (DRE), which is of interest in prostate cancer biomarker discovery studies.

INTRODUCTION:

The constant evolution of proteomic technologies promises to have a considerable impact in helping disease diagnosis and prediction of response to treatment by providing high resolution maps of key molecular effectors present in a wide variety of samples such as tissues and biofluids. From an analytical point of view, urine offers several advantages such as ease of collection and major stability of the proteome with respect to others biofluids¹. Proteomic analysis of urine is of special interest in biomarker discovery studies on urological cancers, since it allows noninvasive sampling in proximity to the tissues of interest². In particular, a sample that seems to be promising for studying prostate-related pathologies is the EPS-urine^{3,4} (i.e., a urine sample collected after a digital rectal exam (DRE)). This latter operation prior to sample collection enriches urine with prostate specific proteins. EPS-urine is a good candidate to investigate disorders related to the prostate gland⁵ including prostate cancer (PCa), since through DRE, proteins secreted by the tumor can be poured into the urine sample, increasing the chance of detecting cancer tissue-specific proteins.

A crucial role in allowing detection and quantification of potential protein biomarkers is played by mass spectrometry (MS). Over the last two decades, MS-based protocols for proteomic analysis have allowed an ever-increasing number of proteins to be detected in a single LC-MS/MS run thanks to continuous improvements in MS instrumentation and in data analysis software⁶.

MS-based proteomic sample preparation generally involves enzymatic digestion of the protein mixture, which can be achieved via a wide variety of protocols such as: in-solution digestion, MStern blotting⁷, suspension trapping (S-trap)⁸, solid-phase-enhanced sample preparation (SP3)⁹, in-StageTip digestion¹⁰ and filter aided sample preparation (FASP)¹¹. All protocols can be used for urinary proteomics, even though results may vary with respect to the number of identified proteins and peptides and in terms of reproducibility¹².

In this work, our attention was focused on the analysis of EPS-urine by the FASP protocol. ~~Originally, the FASP protocol has been was originally~~ designed to analyze proteins extracted from tissues and cell cultures, but, ~~in the years which followed,~~ its use was ~~then~~ expanded to the analysis of ~~several other~~ sample ~~types, s including such as~~ urine¹³. With respect to straightforward in-solution digestion, FASP is a more flexible proteomic approach¹⁴, since ~~by relying on repeated centrifugal filtration steps by it allows achieving effective removal of detergents and other contaminants such as salts purification of the from the~~ protein mixture ~~from detergents, salts and contaminants that might interfere with either before~~ enzymatic digestion ~~or subsequent LC-MS/MS analysis~~¹⁵, ~~thus allowing flexibility init allowss the choice . The versatility of the FASP protocol allows the choice~~ of optimal protein solubilization conditions. Moreover, an additional

characteristic of FASP is that it provides a means for sample concentration; this is of particular interest for urinary proteomic analysis, because it allows to start from relatively large sample volumes for proteomics standards (in the order of the hundreds of microliters). In the light of the potential of the FASP protocol, several studies have focused the attention on the workflow automatization automation, of this protocol with the aim of reducing experimental variability and processing an elevated number of samples in parallel¹⁶.

In our workflow, the FASP protocol is followed by LC-MS/MS acquisition in data-independent analysis (DIA), which provides high proteome coverage, good quantitative precision and low incidence of missing values. The DIA approach is a sensitive method where all ions are selected for MS/MS events, opposite to what happens in data-dependent analysis (DDA) where only ions with the highest intensity are fragmented. The mass spectrometer, operating in DIA mode, performs scan cycles with different isolation width covering the whole m/z precursor range. This approach allows to reproducibly detect a high number of peptides per unit time, providing a proteomics snapshot of the sample¹⁷. Moreover, data generated by DIA have another interesting characteristic: the possibility of *a posteriori* analysis¹⁸. DIA data are more complex than those obtained by DDA, because MS/MS spectra in DIA result from the co-isolation of several precursor ions within each m/z window¹⁹. Disentangling the composite MS/MS spectra into distinct and specific peptide signals is achieved by using two fundamental elements: a spectral library and a dedicated software for data analysis. The spectral library is generated by a data-dependent experiment, usually involving peptide fractionation to maximize proteome coverage, which provides a list of thousands of experimentally determined precursor ions and MS/MS spectra of peptides detectable in the sample under consideration. The data analysis software, instead, uses the information contained in the spectral library to interpret the DIA data by generating specific extracted ion chromatograms which allow peptide detection and quantification. While library-free DIA data analysis is now feasible, library-based DIA still provides better results in terms of proteome coverage²⁰.

The sample preparation protocol here described (**Figure 1**) consists of the following steps: a centrifugation step (to remove cell debris), FASP digestion, StageTip purification²¹, quantification of proteins and DIA analysis. This protocol has been designed for the analysis of EPS-urine in the context of prostate cancer biomarker discovery, but it can be applied to proteomic analysis of any urine sample.

PROTOCOL:

The study was approved by the Institutional Ethical Committee of the Magna Graecia University of Catanzaro, RP 41/2018. Written informed consent was obtained from all patients enrolled in the study.

1. Sample preparation

1.1 Centrifuge EPS-urine samples within two hours of collection at 2100 x g for 10 minutes at room temperature (RT); store the supernatant at -80 °C until use.

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2. Sample thawing

2.1 Transfer the sample from -80 °C to -20 °C the day before digestion. Prior to sample processing, transfer the sample for 15-20 minutes at 4 °C and then at RT.

3. Reagent preparation for FASP

3.1 On the same day, prepare the following solutions: urea buffer, 50 mM iodoacetamide (IAA) in urea buffer, 100 mM triethylammonium bicarbonate and 500 mM dithiothreitol (DTT).

3.2 Prepare urea buffer (urea 8 M, 100 mM Tris-HCl pH 8): ~~Per for~~ 10 mL, weigh 4800 mg of urea and dissolve it in the appropriate amount of HPLC water after adding 1 mL of 1 M Tris pH 8. A volume of 800 µL of urea is needed for each sample.

3.3 Prepare 500 mM dithiothreitol (DTT): dissolve 38.5 mg of DTT in 500 µL of HPLC water. For each sample, 66.7 µL of DTT are needed.

3.4 Prepare 50 mM IAA in Urea Buffer: dissolve 9.25 mg of IAA in 1 mL of urea buffer. For each sample 50 µL of IAA are needed.

3.5 Prepare ~~5100~~ mM triethylammonium bicarbonate (TEAB). Add ~~15300~~ µL of 1 M TEAB to 2.7 mL of HPLC water. For each sample 460 µL of TEAB are needed.

3.6 Trypsin: prepare a solution of trypsin (100 ng/µL) in HPLC water. This solution can be stored at -80 °C and thawed immediately before use. For each sample, 2 µL (200 ng) are needed.

4. Protein digestion by FASP

4.1 Dilute 500 µL of each EPS-urine sample with 66.7 µL of 10% (w/v) sodium dodecyl sulfate (SDS), 66.7 µL of 500 mM DTT and 33.3 µL of 1 M Tris pH 8 to solubilize proteins and to reduce disulphide bonds. Incubate 10 minutes at 95 °C with gentle shaking.

4.2 Add 300 µL of diluted EPS-urine sample on the filter unit (10 kDa) and centrifuge at 14,000 x g for 20 minutes.

4.3 Add 200 µL of urea buffer to the filter and centrifuge at 14,000 x g for 15 minutes. Repeat this step and then discard the flow-through.

4.4 Add 50 µL of IAA solution and centrifuge at 6,000 x g for 25 minutes.

4.5 Add 200 µL of urea buffer and centrifuge at 14,000 x g for 20 minutes. Repeat this step and then discard the flow-through.

177 4.6 Add 200 µL of 50 mM triethylammonium bicarbonate buffer (TEAB) and centrifuge at
178 14,000 x g for 20 minutes. Repeat this step.

179
180 4.7 Transfer the filter unit into a new collection tube.

181
182 4.8 Add 60 µL of 50 mM TEAB buffer and 200 ng of trypsin and incubate the sample in a
183 thermo-mixer at 37°C overnight.

184
185 NOTE: To avoid sample evaporation during overnight incubation, wrap each filter unit with a layer
186 of aluminum foil and then a layer of parafilm.

187
188 4.9 After trypsin incubation, add 140 µL of water and centrifuge the vial at 14,000 x g for 25
189 minutes to collect the volume of digest (180-200 µL).

190
191 **5. Reagent preparation for SCX purification**

192
193 5.1 Prepare 1 mL of wash 1 (0.5% formic acid (FA) and 20% acetonitrile (ACN)) as follows: add
194 50 µL of 10% FA and 200 µL of 100% ACN to 750 µL of HPLC water. For each sample, 100 µL of
195 wash 1 are needed.

196
197 5.2 Prepare 1.5 mL of wash 2 (0.5% FA and 80% of ACN) as follows: add 75 µL of 10 % FA and
198 1.2 mL of 100% ACN to 225 µL of HPLC water. For each sample 190 µL of wash 2 are needed.

199
200 5.3 Prepare 100 µL of eluting solution (500 mM ammonium acetate (AA) and 20% of ACN):
201 add 25 µL of 2 M AA and 20 µL of 100% ACN to 55 µL of HPLC water.

202
203 5.4 Prepare StageTips as follows.

204
205 5.4.1. Pack a 200 µL pipette tip with a layer of SCX resin using a blunt-ended syringe needle
206 (gauge 16). Insert the StageTip into a microcentrifuge lid that has been previously
207 [perforated-pierced](#) in order to accommodate the microcolumn.

208
209 5.4.2. Assemble the lid onto a 2 mL microcentrifuge from which the original lid was removed.
210 The micro-SPE centrifugal device just assembled should fit into a benchtop centrifuge.
211 Since perforated lids are tedious to prepare, they can be utilized multiple times.

212
213 **6. SCX purification**

214
215 6.1 Dilute 30 µL of each sample to 120 µL using wash 2.

216
217 6.2 Condition the StageTip by adding 50 µL of wash 1 on top of the extraction resin and
218 centrifuge at 400 x g for 2 minutes. Since flow resistance depends on how strongly the extraction
219 resin was packed into the pipette tip, centrifuge speed may need to be adjusted in order to obtain

a flow rate of 20-30 $\mu\text{L}/\text{min}$. Try not to ~~have-leave~~ the tip dry during sample loading and washing.

6.3 Equilibrate StageTip with 50 μL of wash 2 ~~solution~~ and centrifuge at 400 x g for 2 minutes.

6.4 Load the diluted sample (120 μL) using a lower spin speed.

6.5 Wash StageTip with 50 μL of wash 2 ~~solution~~ and centrifuge at 400 x g for 2 minutes.

[Repeat with 50 \$\mu\text{L}\$ of wash 1.](#)

NOTE: After this wash the resin must be completely dry.

6.6 Elute peptide mixture with 7 μL of eluate solution (500 mM ammonium acetate (AA) and 20% of ACN) slowly using a lower spin speed.

6.7 Add 27 μL of 0.1% FA to dilute AA and to obtain a sample for LC-MS/MS preliminary injection. The final dilution to 34 μL will result into a 1:1 volumetric ratio between urine and peptide solution (1 μL of purified digest will correspond to 1 μL of original urine sample).

7. Protein quantification by ~~HeLa curve~~[external standard](#) using DDA analysis (Figure 2)

7.1 Determine protein amount in samples by injecting 2 μL of the resulting peptide digest in LC-MS/MS and interpolating the resulting total peptide area with a calibration curve built as follows:

7.2 Prepare five different HeLa digest solutions (1 ng/ μL , 2.5 ng/ μL , 7.5 ng/ μL , 25 ng/ μL , 75 ng/ μL) using a HeLa digest stock (100 $\mu\text{g}/\mu\text{L}$).

7.3 Inject each HeLa solution in duplicate (2 μL).

7.4 Set LC-MS/MS method

7.4.1. ~~Inject~~[Separate](#) 2 μL of the five HeLa peptide mixtures [and separate peptides](#) through a linear gradient of 75 minutes at a flow rate of 230 nL/minute on a 15 cm, 75 μm i.d column packed with 3 μm C18 silica particles. Use a binary gradient constituted by mobile phase A (0.1% FA, 2% ACN) and mobile phase B (0.1% FA and 80% of ACN).

7.4.2. Perform gradient elution [by increasing mobile phase B percentage content](#) from 6% to 42% in 60 minutes and from 42% to 100% in additional 8 minutes; maintain for 5 minutes 100% B and then move back to 0% B in two minutes.

7.4.3. Operate in DDA mode using a top-12 method and set MS full scan range at 350-1800 m/z , resolution 70,000, ACG target 1e6 and maximum injection time 50 ms. Set the mass window for precursor ion isolation at 1.6 m/z , resolution 35,000, ACG target 1e5, maximum injection time 120 ms, HCD fragmentation at of 25 NCE (normalized collision

energy) and dynamic exclusion 15 seconds.

7.5 Analyze raw files using Sequest as search engine, and the HUMAN Uniprot Complete protein sequence as the database. In ~~our~~the experiments presented here, the database was downloaded on March 2016 and contained 42.013 sequences.

7.5.1. Use the following settings: MS tolerance 15 ppm, MS/MS tolerance 0.02 Da, trypsin as enzyme by setting two missed cleavage sites. Set the carbamidomethylation of lysine, serine, threonine, tyrosine (+57.021) and the oxidation of methionines as dynamic modifications and the carbamidomethylation of cysteines (+57.021) as static modifications. Use the cut-off of false discovery rate (FDR) for peptides and proteins identification to 0.01 and filter out by percolator.

7.5.2. Calculate the peak area ~~of for all MS1~~ peptide ~~MS1~~-signals. Calculate the total area of the peptides.

7.6 Inject 2 µL of peptide mixtures obtained from EPS-urine samples using the same LC-MS/MS method used for the HeLa curve buildingsamples and analyze the raw file using the same parameters used for HeLa data processing.

7.7 Calculate total intensity of peptide signals by summing up area values of all identified peptides and interpolate the ~~result with the corresponding values of HeLa curve~~external standard curve. This will provide an acceptable estimation of peptide amount present in the EPS-urine protein digest.

8. Reagent preparation for C 18 StageTip protocol

8.1. Prepare 500 µL of solution A (0.1% Trifluoacetic acid (TFA), 50 % ACN): add 250 µL of 100% ACN and 10 µL of 5% TFA to 240 µL of HPLC water.

8.2. Prepare 2 mL of solution B (0.1 % TFA): add 40 µL of 5% TFA to 1960 µL of HPLC water.

8.3. Prepare 100 µL of eluting solution (0.1% FA, 50% ACN): add 1 µL of 10% FA and 50 µL of 100% ACN to 49 µL of HPLC water.

8.4. Prepare StageTips as previously described. In this case, C18 extraction disks are used.

9. SCX/C18 StageTip protocol

Purify EPS-urine digests by C18 StageTip protocol to remove salts.

9.1 Start from 2 µg of peptides (as quantified by the preliminary injection). Dilute the digest solution 4-fold in wash 2 SCX and proceed as described above (in section "SCX purification"). Elute the peptide mixture with 7 µL of eluate solution (500 mM ammonium acetate (AA) and 20%

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of ACN) slowly using a lower spin speed (5 µL/min flow rate).

9.2 Acidify the SCX eluate with 150 µL of 0.1% of trifluoroacetic acid (TFA) ~~aiming at achieving in order to achieve~~ a pH lower than 3 and a concentration of organic solvent below 5%.

9.3 Condition the C18 StageTip with 50 µL of solution A and centrifuge at 400 x g for 2 minutes. Equilibrate C18 StageTip with 50 µL of solution B and centrifuge at 400 x g for 2 minutes.

9.4 Load the sample on the stage-tip slowly using a lower spin speed.

9.5 Wash C18 StageTip with 50 µL of solution B and centrifuge.

9.6 ~~Slowly e~~Elute the peptide mixture with 10 µL of elution solution ~~slowly~~ using a lower spin speed.

9.7 Dry the eluate (10 µL) at 30 °C in ~~speed-vac in a vacuum centrifuge~~ for 3 minutes. Add 47 µL of 0.1% FA. ~~Expected peptide concentration will be obtaining a solution with a concentration of 40 ng/ µL by each sample.~~ Analyze ~~these samples by DIA method by LC-MS/MS in DIA mode.~~

10. DIA Analysis (Figure 3)

10.1. nanoLC separation: Separate the peptide mixture using a linear gradient of 140 minutes at a flow rate of 230 nL/min on a 15 cm, 75 µm ID column packed with 3 µm C18 silica particles. Perform gradient elution at 230 nL/minute flow rate and increase ~~mobile phase B content~~ from 3% ~~B~~ to 25% ~~B~~ in 90 minutes, ~~then~~ from 25% ~~B~~ to 40% ~~B~~ in 30 minutes and ~~finally~~ from 40% ~~B~~ to 100% ~~B~~ in 8 minutes; after 10 minutes at 100% B, ~~equilibrate the column with mobile phase A for 15 min.~~

10.2. Mass spectrometric parameters: perform DIA analysis using a method employing the following scan cycle: (i) a full scan MS event at a resolution of 17,500 (AGC target 1e6, maximum injection time 50 ms) followed by (ii) 20 windows at 20 *m/z* isolation width, starting from *m/z* 350, (iii) 5 windows at 50 *m/z* isolation width and (iv) 1 window at 200 *m/z* isolation width, ending the scan range of DIA at 1200 *m/z*. DIA scans are performed at resolution 35,000 (AGC target 5e5, maximum injection time 120 ms and 25 NCE).

11. High- pH reversed phase C18 fractionation for library generation

Pool EPS-urine representative samples in an amount of higher than 10 µg in order to build a data-dependent library for DIA analysis by the following procedure:

11.1 Acidify the peptide mixture (11 µg) by 0.2% of TFA and load the resulting solution onto a C18 StageTip packed with two layers of extraction disks to allow higher capacity. We estimated the loading capacity of a single micro disk (from a 16 gauge syringe needle) to be in the 5-10 µg range.

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11.2 Condition and equilibrate stationary phase as already described for C18 purification.

11.3 Carry out peptides fractionation ~~in 10 different fraction~~ by stepwise elution (n=10) from high-pH reversed phase C18 ~~fractionation~~ using elution solutions containing 0.2% of ammonium hydroxide, 10 mM TEAB, and increasing v/v concentrations of ACN (4%, 8%, 12%, 16%, 20%, 24%, 28%, 32%, 40%, 80%).

~~11.4~~ Analyze the 10 fractions using ~~the following LC-MS/MS method: use~~ using the same chromatographic parameters ~~and the same gradient of the of DIA method data acquisition.~~

~~11.5~~ 11.4 Operate the mass spectrometer in DDA mode using ~~the same parameters~~ the settings described previously adopted for the preliminary analysis (see "Protein quantification by ~~HeLa curve~~ external standard by using DDA analysis").

12. DataDIA analysis

12.1 Generate your spectral library by importing the protein identification results obtained from the DDA LC-MS/MS experiments of high-reversed phase C18 fractionation in a software dedicated to DIA analysis.

12.2 Set the minimum and maximum number of fragment ions used for identification and quantification to 3 and 6, respectively. Filter the obtained results by a Q-value of 0.01.

12.3 Import DIA raw files and associate to each raw file the same FASTA file used for creating the spectral library.

12.4 Set the minimum and maximum number of unique peptides used for protein quantification to 1 and 10, respectively.

12.5 Calculate the intensity for each protein by summing fragment ion peak area.

12.6 Generate a matrix with the intensity of the quantified proteins in each sample.

REPRESENTATIVE RESULTS:

This protocol for urinary proteomic analysis includes the following steps: FASP digestion, estimation of protein amount via external standard calibration, a double StageTip purification (SCX and C18), ~~estimation of protein amount via external standard calibration~~, and LC-MS/MS analysis in DIA mode.

After protein digestion, preliminary injections are performed after StageTip SCX purification of the resulting peptides. LC-MS/MS raw files are processed to obtain the number of identified peptides, the number of identified proteins and the area of detected peptides. The total area obtained by summing up all identified peptides is used to estimate protein content via

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interpolation to an external standard: a HeLa protein digest injected at five different amounts (2, 5, 15, 50, 150 ng, respectively). The protein amount for the six samples analyzed in this study varied from sample to sample, showing in average a value of 78 ng/μL.

After protein estimation, 2 μg of digested proteins from each sample are purified by sequential SCX and C18 StageTip before DIA analysis. The spectral library for searching DIA data is created after high-pH reversed-phase fractionation and DDA LC-MS/MS analysis of a representative sample (e.g. a sample pool). Using the parameters described above, we have identified and quantified, cumulatively, 2387 protein groups in the six EPS-urine samples under consideration (**Supplementary Table 1** and **Figure 4**).

In order to evaluate from a qualitative point of view the relevance of the list of identified and quantified proteins, the obtained matrix was compared to a list of 624 proteins previously identified in direct- EPS²², a sample collected in a more invasive procedure, which has proven to be a source of interesting candidate prostate cancer biomarkers. In total, 508 out of 624 proteins were successfully detected by our FASP/DIA protocol on EPS-urine.

FIGURE AND TABLE LEGENDS:

Figure 1: Proteomic workflow.

Figure 2: Representation of our experimental design for protein quantification based on external standard (HeLa digest).

Figure 3: Key steps of DIA analysis: (i) elaboration of the spectral library through high-pH reversed-phase fractionation and DDA analysis, (ii) sample analysis using the DIA approach, (iii) data analysis by Spectronaut.

Figure 4: Ranked plot for the detected EPS-urinary proteins. A few selected hits are labelled.

Supplementary Table 1: Representative table of quantified proteins in six EPS-urine samples in Spectronaut.

DISCUSSION:

In this work, a strategy for analyzing **challenging** EPS-urine samples is presented. The FASP protocol is an ideal choice for urinary proteomics because it allows sample concentration before enzymatic digestion; in fact, using this workflow, several hundreds of microliters of urine can be loaded on a single filter and processed. Moreover, on-filter digestion offers relative freedom in the choice of denaturation conditions. In our work, protein denaturation is achieved by diluting urine samples in a buffer containing Tris, SDS and DTT (final concentration: 100 mM Tris, 1% SDS, 50 mM DTT). Proteins are efficiently denatured immediately after thawing the sample, in order to avoid unwanted degradation by active proteases. The original FASP protocol has been improved by increasing the volume of washes from 100 μL to 200 μL; in this way, better removal of residues, especially detergents from the filter is achieved.

After enzymatic digestion~~In a second moment~~, protein estimation by external standard using a fast LC-MS/MS, data-dependent method is performed ~~allows to perform before~~ the last steps of the protocol, which ~~comprising~~ double StageTip purification and LC-MS/MS analysis in DIA mode, on equal starting material for all samples (2 µg).

The versatility of FASP is associated with the DIA approach, a sensitive method providing a low number of missing values¹⁷. In our work, 2387 proteins were identified and quantified, thus delineating-enabling a detailed proteomic profile of EPS-urine to be drawn. The identification and ~~the~~ quantification of 2387 proteins was possible through the generation of a rich spectral library, obtained ~~via~~ high-pH reversed fractionation of peptides, and by our DIA method, directed at a wide *m/z* precursor range. This workflow identified over 80% of proteins previously found in direct-EPS analysis, demonstrating that a considerable fraction of the EPS-urinary proteome is indeed derived from expressed prostatic secretions, thus is a rich source of prostate tissue-specific proteins²⁶.

In conclusion, our experimental design couples the versatility of FASP with the sensitivity of DIA ~~thus obtaining a deep in order to obtain a rich~~ mapping of the urinary proteome. This strategy is recommended ~~as approach to analyze for analyzing~~ EPS-urine samples, but its use can be extended to urinary proteomics in general, or even to other sample types. ~~can be used to perform proteomics analysis even on different samples.~~

ACKNOWLEDGMENTS:

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DISCLOSURES:

All authors declare no conflict of interest.

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PG.ProteinGroups	PG.ProteinAccessions	PG.Genes	Sample 1.PG.Quantity
A0A024RBG1;Q9NZJ9	A0A024RBG1;Q9NZJ9	NUDT4B;NUDT4	1.15E+04
A0A075B6I9;P04211	A0A075B6I9;P04211	IGLV7-46;IGLV7-43	8.57E+04
A0A075B6K5;P80748	A0A075B6K5;P80748	IGLV3-9;IGLV3-21	1.01E+06
B6P5;A0A087WW87;P016146P5;A0A087WW87;P016148;IGKV2-40;IGKV2D-40;IGKB4J1V1;P01762;P01763;P01B4J1V1;P01762;P01763;P01-21;IGHV3-11;IGHV3-48;IGHV3-72	B6P5;A0A087WW87;P016146P5;A0A087WW87;P016148;IGKV2-40;IGKV2D-40;IGKB4J1V1;P01762;P01763;P01B4J1V1;P01762;P01763;P01-21;IGHV3-11;IGHV3-48;IGHV3-72	IGHV4-4	2.94E+05
A0A0A0MRZ8;P04433	A0A0A0MRZ8;P04433	IGKV3D-11;IGKV3-11	1.44E+07
B4J1V1;P01762;P01763;P01B4J1V1;P01762;P01763;P01-21;IGHV3-11;IGHV3-48;IGHV3-72	B4J1V1;P01762;P01763;P01B4J1V1;P01762;P01763;P01-21;IGHV3-11;IGHV3-48;IGHV3-72	IGHV3-72	3.71E+05
A0A1B0GUS4;P68036	A0A1B0GUS4;P68036	UBE2L5;UBE2L3	Filtered
A0AVF1	A0AVF1	TTC26	6.96E+04
A0AVT1	A0AVT1	UBA6	8.81E+03
A0M8Q6	A0M8Q6	IGLC7	9.22E+04
A0MZ66	A0MZ66	SHTN1	Filtered
A0PJK1	A0PJK1	SLC5A10	4.16E+03
A1A5C7	A1A5C7	SLC22A23	Filtered
A1L4H1	A1L4H1	SSC5D	Filtered
A4D1S5	A4D1S5	RAB19	5.40E+02
A5D8V6	A5D8V6	VPS37C	4.82E+04
A6NDG6	A6NDG6	PGP	1.92E+04
A6NHG4;P30046	A6NHG4;P30046	DDTL;DDT	5.79E+04
A6NI73	A6NI73	LILRA5	3.96E+04
A6NL88	A6NL88	SHISA7	5.98E+03
B2RUZ4	B2RUZ4	SMIM1	Filtered
C4AMC7;Q6VEQ5	C4AMC7;Q6VEQ5	WASH3P;WASH2P	3.68E+04
C9JVW0	C9JVW0	INAFM1	1.30E+04
E9PAV3;Q13765	E9PAV3;Q13765	NACA	4.84E+03
O00115	O00115	DNASE2	2.52E+05
O00139	O00139	KIF2A	Filtered
O00142	O00142	TK2	5.38E+04
O00144	O00144	FZD9	1.14E+04
O00151	O00151	PDLIM1	Filtered
O00159	O00159	MYO1C	4.59E+03
O00161	O00161	SNAP23	1.12E+04
O00182;Q3B8N2;Q6DKI2	O00182;Q3B8N2;Q6DKI2	LGALS9;LGALS9B;LGALS9C	1.71E+05
O00186	O00186	STXBP3	Filtered
O00187	O00187	MASP2	4.50E+06
O00194	O00194	RAB27B	1.03E+05
O00204	O00204	SULT2B1	Filtered
O00231	O00231	PSMD11	Filtered
O00233	O00233	PSMD9	2.63E+05
O00241	O00241	SIRPB1	1.21E+05
O00244	O00244	ATOX1	2.85E+04
O00264	O00264	PGRMC1	5.28E+04
O00299	O00299	CLIC1	2.33E+04
O00322	O00322	UPK1A	1.97E+04
O00337	O00337	SLC28A1	3.16E+04

O00391	O00391	QSOX1	2.01E+05
O00401	O00401	WASL	Filtered
O00410	O00410	IPO5	Filtered
O00461	O00461	GOLIM4	5.65E+03
O00462	O00462	MANBA	2.07E+04
O00468	O00468	AGRN	5.04E+05
O00487	O00487	PSMD14	4.85E+03
O00499	O00499	BIN1	2.65E+04
O00526	O00526	UPK2	3.86E+04
O00533	O00533	CHL1	4.76E+04
O00534	O00534	VWA5A	Filtered
O00560	O00560	SDCBP	1.12E+05
O00571;O15523;Q9NQI0	O00571;O15523;Q9NQI0	DDX3X;DDX3Y;DDX4	Filtered
O00584	O00584	RNASET2	3.16E+05
O00592	O00592	PODXL	2.83E+05
O00622	O00622	CYR61	Filtered
O00748	O00748	CES2	2.07E+03
O00754	O00754	MAN2B1	7.24E+04
O00757	O00757	FBP2	1.20E+05
O00764	O00764	PDXK	9.00E+03
O14494	O14494	PLPP1	4.05E+03
O14498	O14498	ISLR	3.28E+05
O14558	O14558	HSPB6	Filtered
O14579	O14579	COPE	Filtered
O14594	O14594	NCAN	Filtered
O14618	O14618	CCS	2.21E+04
O14672	O14672	ADAM10	5.93E+04
O14745	O14745	SLC9A3R1	3.88E+04
O14773	O14773	TPP1	1.05E+05
O14786	O14786	NRP1	1.43E+03
O14791	O14791	APOL1	2.36E+04
O14798	O14798	TNFRSF10C	1.49E+04
O14818	O14818	PSMA7	2.84E+04
O14828	O14828	SCAMP3	2.20E+03
O14841	O14841	OPLAH	8.27E+02
O14907	O14907	TAX1BP3	Filtered
O14908	O14908	GIPC1	Filtered
O14917	O14917	PCDH17	1.51E+03
O14950;P19105	O14950;P19105	MYL12B;MYL12A	Filtered
O14966	O14966	RAB29	5.56E+03
O15031	O15031	PLXNB2	1.15E+04
O15067	O15067	PFAS	Filtered
O15126	O15126	SCAMP1	3.30E+03
O15127	O15127	SCAMP2	Filtered
O15143	O15143	ARPC1B	Filtered
O15144	O15144	ARPC2	1.43E+04
O15145	O15145	ARPC3	Filtered

O15162	O15162	PLSCR1	1.33E+05
O15197	O15197	EPHB6	2.43E+04
O15204	O15204	ADAMDEC1	4.49E+04
O15230	O15230	LAMA5	3.95E+04
O15240	O15240	VGF	3.84E+05
O15244	O15244	SLC22A2	1.67E+04
O15296	O15296	ALOX15B	3.93E+04
O15305	O15305	PMM2	4.21E+03
O15393	O15393	TMPRSS2	3.25E+05
O15394	O15394	NCAM2	3.44E+04
O15400	O15400	STX7	Filtered
O15417	O15417	TNRC18	8.51E+03
O15431	O15431	SLC31A1	9.16E+03
O15484	O15484	CAPN5	Filtered
O15498	O15498	YKT6	7.22E+03
O15511	O15511	ARPC5	6.92E+03
O15540	O15540	FABP7	7.84E+03
O43149	O43149	ZZEF1	Filtered
O43155	O43155	FLRT2	9.62E+03
O43175	O43175	PHGDH	5.29E+04
O43182	O43182	ARHGAP6	Filtered
O43237	O43237	DYNC1LI2	Filtered
O43242	O43242	PSMD3	2.53E+03
O43278	O43278	SPINT1	6.40E+04
O43291	O43291	SPINT2	4.32E+05
O43396	O43396	TXNL1	1.16E+04
O43405	O43405	COCH	2.70E+05
O43432	O43432	EIF4G3	5.81E+05
O43451	O43451	MGAM	7.82E+04
O43488	O43488	AKR7A2	2.64E+04
O43490	O43490	PROM1	2.59E+04
O43493	O43493	TGOLN2	1.01E+04
O43505	O43505	B4GAT1	1.72E+05
O43508	O43508	TNFSF12	Filtered
O43529	O43529	CHST10	Filtered
O43567	O43567	RNF13	4.86E+04
O43570	O43570	CA12	2.47E+04
O43572	O43572	AKAP10	Filtered
O43581	O43581	SYT7	1.80E+04
O43617	O43617	TRAPPC3	9.03E+03
O43633	O43633	CHMP2A	1.96E+04
O43639	O43639	NCK2	Filtered
O43653	O43653	PSCA	1.92E+05
O43657	O43657	TSPAN6	4.28E+04
O43681	O43681	ASNA1	Filtered
O43687	O43687	AKAP7	1.14E+04
O43692	O43692	PI15	5.08E+04

O43707	O43707	ACTN4	2.32E+04
O43708	O43708	GSTZ1	Filtered
O43747	O43747	AP1G1	5.59E+03
O43760	O43760	SYNGR2	6.67E+04
O43776	O43776	NARS	1.87E+04
3790;P78385;P78386;Q1453790;P78385;P78386;Q1453790;KRT86;KRT83;KRT85;KRT81			1.36E+06
O43795	O43795	MYO1B	3.25E+03
O43813	O43813	LANCL1	6.25E+03
O43847	O43847	NRDC	Filtered
O43865	O43865	AHCYL1	2.08E+04
O43866	O43866	CD5L	3.99E+04
O43895	O43895	XPNPEP2	2.18E+04
O60234	O60234	GMFG	1.62E+04
O60245	O60245	PCDH7	1.49E+04
O60256;Q14558	O60256;Q14558	PRPSAP2;PRPSAP1	1.21E+04
O60262	O60262	GNG7	Filtered
O60268	O60268	KIAA0513	Filtered
O60271	O60271	SPAG9	8.95E+03
O60279	O60279	SUSD5	4.37E+05
O60282	O60282	KIF5C	3.00E+04
O60331	O60331	PIP5K1C	Filtered
O60353	O60353	FZD6	4.72E+04
O60437	O60437	PPL	6.48E+03
O60462	O60462	NRP2	2.63E+03
O60487	O60487	MPZL2	2.18E+03
O60493	O60493	SNX3	3.78E+03
O60494	O60494	CUBN	3.12E+05
O60506	O60506	SYNCRIP	5.50E+03
O60547	O60547	GMDS	3.19E+04
O60568	O60568	PLOD3	1.22E+04
O60603	O60603	TLR2	Filtered
O60609	O60609	GFRA3	3.46E+04
O60610	O60610	DIAPH1	1.90E+03
O60635	O60635	TSPAN1	3.41E+04
O60664	O60664	PLIN3	4.56E+03
O60684	O60684	KPNA6	Filtered
O60701	O60701	UGDH	4.76E+04
O60739;P41567	O60739;P41567	EIF1B;EIF1	Filtered
O60749	O60749	SNX2	Filtered
O60763	O60763	USO1	5.49E+03
O60784	O60784	TOM1	Filtered
P62807;Q5QNW6;Q93079;P62807;Q5QNW6;Q93079;HIST2H2BF;HIST1H2BI			Filtered
O60884	O60884	DNAJA2	1.67E+04
O60888	O60888	CUTA	7.12E+04
O60896	O60896	RAMP3	Filtered
O60925	O60925	PFDN1	Filtered
O75071	O75071	EFCAB14	3.65E+04

O75074	O75074	LRP3	2.52E+04
O75083	O75083	WDR1	3.54E+04
O75084;Q14332	O75084;Q14332	FZD7;FZD2	8.02E+04
O75093	O75093	SLIT1	4.93E+04
O75094	O75094	SLIT3	9.82E+03
O75110	O75110	ATP9A	1.57E+04
O75116;Q13464	O75116;Q13464	ROCK2;ROCK1	4.76E+03
O75131	O75131	CPNE3	1.99E+04
O75144	O75144	ICOSLG	3.23E+04
O75165	O75165	DNAJC13	Filtered
O75223	O75223	GGCT	3.59E+04
O75264	O75264	SMIM24	1.79E+04
O75309	O75309	CDH16	2.38E+04
O75326	O75326	SEMA7A	9.58E+02
O75339	O75339	CILP	7.17E+04
O75340	O75340	PDCD6	1.32E+04
O75347	O75347	TBCA	1.71E+04
O75348	O75348	ATP6V1G1	2.75E+04
O75351	O75351	VPS4B	1.19E+04
O75354	O75354	ENTPD6	Filtered
O75355	O75355	ENTPD3	4.60E+02
O75363	O75363	BCAS1	4.39E+03
O75368	O75368	SH3BGRL	1.86E+04
O75369	O75369	FLNB	3.31E+04
O75436	O75436	VPS26A	Filtered
O75477;O94905	O75477;O94905	ERLIN1;ERLIN2	Filtered
O75487	O75487	GPC4	2.60E+03
O75503	O75503	CLN5	3.58E+04
O75569	O75569	PRKRA	Filtered
O75594	O75594	PGLYRP1	6.82E+05
O75629	O75629	CREG1	2.36E+04
O75674	O75674	TOM1L1	1.33E+04
O75688	O75688	PPM1B	Filtered
O75695	O75695	RP2	3.29E+04
O75752	O75752	B3GALNT1	Filtered
O75781	O75781	PALM	9.86E+03
O75787	O75787	ATP6AP2	4.45E+04
O75822	O75822	EIF3J	2.47E+03
O75828	O75828	CBR3	Filtered
O75843	O75843	AP1G2	Filtered
O75844	O75844	ZMPSTE24	6.13E+03
O75874	O75874	IDH1	3.41E+05
O75882	O75882	ATRNL	2.00E+05
O75886	O75886	STAM2	Filtered
O75891	O75891	ALDH1L1	9.14E+03
O75914;Q13177	O75914;Q13177	PAK3;PAK2	Filtered
O75936	O75936	BBOX1	2.42E+04

O75955	O75955	FLOT1	Filtered
O75976	O75976	CPD	1.10E+04
O76054	O76054	SEC14L2	1.04E+04
O76070	O76070	SNCG	8.61E+03
O76076	O76076	WISP2	2.01E+05
O94760	O94760	DDAH1	3.43E+04
O94772	O94772	LY6H	5.51E+04
O94813	O94813	SLIT2	Filtered
O94832	O94832	MYO1D	1.79E+03
O94886	O94886	TMEM63A	5.42E+04
O94910	O94910	ADGRL1	5.00E+04
O94919	O94919	ENDOD1	2.23E+05
O94973	O94973	AP2A2	Filtered
O94979	O94979	SEC31A	Filtered
O94985	O94985	CLSTN1	4.01E+04
O95025	O95025	SEMA3D	Filtered
O95084	O95084	PRSS23	1.41E+04
O95159	O95159	ZFPL1	Filtered
O95196	O95196	CSPG5	Filtered
O95274	O95274	LYPD3	5.96E+04
O95295	O95295	SNAPIN	7.42E+02
O95297	O95297	MPZL1	1.44E+04
O95336	O95336	PGLS	4.18E+05
O95359	O95359	TACC2	5.22E+03
O95372	O95372	LYPLA2	Filtered
O95373	O95373	IPO7	Filtered
O95394	O95394	PGM3	4.26E+03
O95433	O95433	AHSA1	1.23E+04
O95445	O95445	APOM	1.40E+05
O95450	O95450	ADAMTS2	1.33E+05
O95460	O95460	MATN4	5.15E+04
O95490	O95490	ADGRL2	3.99E+03
O95497	O95497	VNN1	6.82E+04
O95502	O95502	NPTXR	Filtered
O95551	O95551	TDP2	Filtered
O95630	O95630	STAMBP	1.46E+04
O95633	O95633	FSTL3	Filtered
O95671	O95671	ASMTL	Filtered
O95716	O95716	RAB3D	3.03E+05
O95749	O95749	GGPS1	Filtered
O95757	O95757	HSPA4L	Filtered
O95817	O95817	BAG3	Filtered
O95831	O95831	AIFM1	1.17E+03
O95834	O95834	EML2	1.72E+04
O95841	O95841	ANGPTL1	1.05E+04
O95861	O95861	BPNT1	1.89E+04
O95865	O95865	DDAH2	1.15E+05

O95897	O95897	OLFM2	9.34E+02
O95954	O95954	FTCD	1.97E+04
O95967	O95967	EFEMP2	8.93E+04
O95980	O95980	RECK	1.44E+04
O95998	O95998	IL18BP	1.52E+05
O96009	O96009	NAPSA	6.30E+05
O96033	O96033	MOCS2	9.00E+04
P00167	P00167	CYB5A	7.65E+03
P00338	P00338	LDHA	1.88E+05
P00352	P00352	ALDH1A1	1.00E+04
P00367	P00367	GLUD1	1.20E+03
P00390	P00390	GSR	4.70E+04
P00403	P00403	MT-CO2	6.30E+03
P00439	P00439	PAH	6.57E+03
P00441	P00441	SOD1	1.21E+05
P00450	P00450	CP	2.35E+06
P00491	P00491	PNP	1.87E+04
P00492	P00492	HPRT1	1.22E+04
P00505	P00505	GOT2	Filtered
P00558	P00558	PGK1	8.16E+04
P00568	P00568	AK1	7.98E+03
P00734	P00734	F2	2.84E+06
P00736	P00736	C1R	Filtered
P00738	P00738	HP	3.07E+06
P00740	P00740	F9	6.63E+04
P00742	P00742	F10	2.65E+04
P00746	P00746	CFD	1.69E+04
P00747	P00747	PLG	5.10E+05
P00748	P00748	F12	7.92E+03
P00749	P00749	PLAU	5.36E+04
P00750	P00750	PLAT	6.64E+03
P00751	P00751	CFB	1.94E+05
P00915	P00915	CA1	2.00E+05
P00918	P00918	CA2	5.08E+04
P00966	P00966	ASS1	4.25E+04
P00995	P00995	SPINK1	5.86E+05
P01008	P01008	SERPINC1	3.57E+05
P01009	P01009	SERPINA1	4.17E+06
P01011	P01011	SERPINA3	1.17E+07
P01019	P01019	AGT	1.83E+05
P01023	P01023	A2M	6.52E+04
P01024	P01024	C3	4.65E+05
P01031	P01031	C5	2.50E+04
P01033	P01033	TIMP1	2.70E+05
P01034	P01034	CST3	7.43E+05
P01036	P01036	CST4	6.78E+04
P01040	P01040	CSTA	4.72E+05

P01042	P01042	KNG1	4.89E+06
P01111	P01111	NRAS	Filtered
P01116	P01116	KRAS	4.16E+04
P01127	P01127	PDGFB	9.90E+04
P01130	P01130	LDLR	1.81E+04
P01133	P01133	EGF	4.48E+05
P01189	P01189	POMC	2.52E+04
P01210	P01210	PENK	Filtered
P01225	P01225	FSHB	8.75E+04
P01229	P01229	LHB	Filtered
P01258	P01258	CALCA	1.87E+04
P01344	P01344	IGF2	4.52E+04
P01589	P01589	IL2RA	5.00E+04
P01591	P01591	JCHAIN	7.52E+05
P01601	P01601	IGKV1D-16	5.35E+04
P01619	P01619	IGKV3-20	2.15E+06
P01624	P01624	IGKV3-15	5.56E+05
P01700	P01700	IGLV1-47	1.81E+05
P01701	P01701	IGLV1-51	Filtered
P01714	P01714	IGLV3-19	8.12E+05
P01743	P01743	IGHV1-46	1.20E+06
P01764;P01768;P0DP03	P01764;P01768;P0DP03	HV3-23;IGHV3-30;IGHV3-30	3.87E+05
P01833	P01833	PIGR	1.14E+06
P01834	P01834	IGKC	5.27E+07
P01859	P01859	IGHG2	1.67E+07
P01860	P01860	IGHG3	2.79E+07
P01861	P01861	IGHG4	4.23E+05
P01871	P01871	IGHM	4.58E+04
P01876	P01876	IGHA1	9.03E+06
P01889;P30460;P30480	P01889;P30460;P30480	HLA-B	9.10E+04
P01903	P01903	HLA-DRA	1.22E+04
I229;P13760;Q29974;Q301I229;P13760;Q29974;Q301B1;HLA-DRB1;HLA-DRB1;HLA-DQB1			Filtered
P01920	P01920	HLA-DQB1	2.30E+03
P02042	P02042	HBD	6.15E+04
P02144	P02144	MB	2.09E+04
P02452	P02452	COL1A1	1.95E+05
P02461	P02461	COL3A1	3.71E+05
P02462;P29400	P02462;P29400	COL4A1;COL4A5	2.63E+04
P02511	P02511	CRYAB	1.17E+04
P02533	P02533	KRT14	2.39E+05
P02538	P02538	KRT6A	1.57E+05
P02545	P02545	LMNA	Filtered
P02647	P02647	APOA1	4.47E+05
P02649	P02649	APOE	4.09E+05
P02652	P02652	APOA2	1.87E+05
P02655	P02655	APOC2	8.79E+04
P02656	P02656	APOC3	7.70E+04

P02671	P02671	FGA	1.37E+05
P02675	P02675	FGB	7.19E+04
P02679	P02679	FGG	1.42E+05
P02730	P02730	SLC4A1	7.08E+03
P02741	P02741	CRP	Filtered
P02743	P02743	APCS	8.07E+04
P02747	P02747	C1QC	4.25E+03
P02748	P02748	C9	6.39E+04
P02749	P02749	APOH	4.09E+05
P02750	P02750	LRG1	1.04E+07
P02751	P02751	FN1	1.08E+06
P02753	P02753	RBP4	1.35E+06
P02760	P02760	AMBP	1.25E+08
P02763	P02763	ORM1	2.28E+07
P02765	P02765	AHSG	3.55E+06
P02766	P02766	TTR	1.30E+06
P02768	P02768	ALB	2.96E+08
P02774	P02774	GC	4.49E+05
P02776;P10720	P02776;P10720	PF4;PF4V1	Filtered
P02786	P02786	TFRC	1.55E+04
P02787	P02787	TF	1.81E+07
P02788	P02788	LTF	7.52E+06
P02790	P02790	HPX	1.23E+06
P02792	P02792	FTL	1.09E+05
P02794	P02794	FTH1	1.50E+05
P02795;P13640;P80297	P02795;P13640;P80297	MT2A;MT1G;MT1X	4.65E+05
P02810	P02810	PRH1	4.31E+04
P03950	P03950	ANG	3.73E+04
P03951	P03951	F11	4.89E+03
P03952	P03952	KLKB1	3.44E+04
P03973	P03973	SLPI	5.89E+04
P04003	P04003	C4BPA	2.13E+04
P04004	P04004	VTN	3.34E+05
P04040	P04040	CAT	2.23E+04
P04049;P10398;P15056	P04049;P10398;P15056	RAF1;ARAF;BRAF	Filtered
P04062	P04062	GBA	2.99E+04
P04066	P04066	FUCA1	5.08E+04
P04075	P04075	ALDOA	9.55E+04
P04080	P04080	CSTB	6.29E+04
P04083	P04083	ANXA1	1.24E+05
P04085	P04085	PDGFA	1.06E+05
P04114	P04114	APOB	4.88E+03
P04118	P04118	CLPS	Filtered
P04155	P04155	TFF1	5.35E+06
P04156	P04156	PRNP	4.28E+05
P04179	P04179	SOD2	3.12E+03
P04180	P04180	LCAT	1.46E+05

P04196	P04196	HRG	1.74E+05
P04216	P04216	THY1	1.13E+05
P04217	P04217	A1BG	3.62E+06
P04259	P04259	KRT6B	3.06E+05
P04264	P04264	KRT1	7.53E+05
P04275	P04275	VWF	3.00E+04
P04279	P04279	SEMG1	3.57E+03
P04406	P04406	GAPDH	1.24E+05
P04424	P04424	ASL	Filtered
P04440	P04440	HLA-DPB1	2.68E+04
P04626	P04626	ERBB2	Filtered
P04632	P04632	CAPNS1	1.75E+04
P04733	P04733	MT1F	2.40E+04
P04745	P04745	AMY1A	1.57E+06
P04746	P04746	AMY2A	7.51E+03
P04792	P04792	HSPB1	7.98E+04
P04843	P04843	RPN1	9.40E+03
P04899	P04899	GNAI2	3.92E+04
P04908;Q7L7L0;Q93077	P04908;Q7L7L0;Q93077	T1H2AB;HIST3H2A;HIST1H2	3.16E+04
P05023	P05023	ATP1A1	2.91E+04
P05026	P05026	ATP1B1	2.56E+04
P05060	P05060	CHGB	1.08E+05
P05062	P05062	ALDOB	1.03E+05
P05067	P05067	APP	1.18E+05
P05089	P05089	ARG1	1.66E+04
P05090	P05090	APOD	2.34E+07
P05091	P05091	ALDH2	Filtered
P05107	P05107	ITGB2	4.12E+04
P05109	P05109	S100A8	2.28E+06
P05154	P05154	SERPINA5	6.56E+05
P05155	P05155	SERPING1	4.27E+05
P05156	P05156	CFI	9.74E+04
P05164	P05164	MPO	5.96E+05
P05198	P05198	EIF2S1	6.55E+03
P05362	P05362	ICAM1	4.98E+04
P05387	P05387	RPLP2	4.24E+03
P05388;Q8NHW5	P05388;Q8NHW5	RPLP0;RPLP0P6	Filtered
P05413	P05413	FABP3	7.01E+04
P05451	P05451	REG1A	2.40E+06
P05452	P05452	CLEC3B	5.43E+04
P05534	P05534	HLA-A	3.80E+04
P05543	P05543	SERPINA7	1.76E+05
P05546	P05546	SERPIND1	1.68E+04
P05556	P05556	ITGB1	5.79E+04
P05783	P05783	KRT18	4.27E+04
P05787	P05787	KRT8	2.10E+04
P05937	P05937	CALB1	4.09E+04

P05981	P05981	HPN	8.70E+03
P06132	P06132	UROD	Filtered
P06276	P06276	BCHE	7.85E+03
P06280	P06280	GLA	7.01E+04
P06310	P06310	IGKV2-30	2.73E+05
P06312	P06312	IGKV4-1	2.47E+05
P06396	P06396	GSN	6.09E+06
P06454	P06454	PTMA	9.81E+04
P06576	P06576	ATP5F1B	1.13E+04
P06681	P06681	C2	1.85E+04
P06702	P06702	S100A9	1.12E+06
P06703	P06703	S100A6	1.01E+06
P06727	P06727	APOA4	3.03E+05
P06730	P06730	EIF4E	Filtered
P06731	P06731	CEACAM5	2.11E+04
P06733	P06733	ENO1	1.12E+05
P06734	P06734	FCER2	2.59E+04
P06737	P06737	PYGL	2.86E+03
P06744	P06744	GPI	1.78E+04
P06753	P06753	TPM3	2.03E+04
P06756	P06756	ITGAV	2.87E+03
P06858	P06858	LPL	Filtered
P06865	P06865	HEXA	1.88E+05
P06870	P06870	KLK1	2.79E+05
6899;P23527;P33778;Q1676899;P23527;P33778;Q1676899;HIST1H2BO;HIST1H2BB;H			1.13E+05
P07099	P07099	EPHX1	Filtered
P07108	P07108	DBI	7.07E+04
P07148	P07148	FABP1	2.20E+05
P07195	P07195	LDHB	1.34E+05
P07203	P07203	GPX1	Filtered
P07204	P07204	THBD	5.74E+04
P07225	P07225	PROS1	1.09E+04
P07237	P07237	P4HB	2.24E+04
P07288	P07288	KLK3	6.15E+06
P07306	P07306	ASGR1	5.53E+04
P07339	P07339	CTSD	8.01E+05
P07355	P07355	ANXA2	1.43E+05
P07357	P07357	C8A	2.75E+04
P07358	P07358	C8B	1.44E+04
P07359	P07359	GP1BA	8.81E+04
P07360	P07360	C8G	1.13E+04
P07384	P07384	CAPN1	3.14E+04
P07437	P07437	TUBB	8.44E+04
P07476	P07476	IVL	1.26E+04
P07478	P07478	PRSS2	4.78E+04
P07585	P07585	DCN	2.70E+04
P07602	P07602	PSAP	1.82E+06

P07686	P07686	HEXB	1.76E+05
P07711	P07711	CTSL	2.90E+05
P07737	P07737	PFN1	5.30E+04
P07741	P07741	APRT	1.86E+04
P07858	P07858	CTSB	1.06E+06
P07900	P07900	HSP90AA1	6.08E+04
P07902	P07902	GALT	8.03E+03
P07911	P07911	UMOD	9.28E+06
P07942	P07942	LAMB1	1.07E+04
P07947	P07947	YES1	Filtered
P07948	P07948	LYN	2.89E+03
P07954	P07954	FH	6.34E+03
P07996	P07996	THBS1	1.15E+05
P07998	P07998	RNASE1	7.51E+06
P08118	P08118	MSMB	2.51E+06
P08123	P08123	COL1A2	8.30E+04
P08133	P08133	ANXA6	2.31E+04
P08134	P08134	RHOC	4.85E+04
P08138	P08138	NGFR	2.72E+05
P08174	P08174	CD55	1.78E+06
P08183	P08183	ABCB1	1.93E+04
P08185	P08185	SERPINA6	5.07E+05
P08195	P08195	SLC3A2	1.13E+04
P08236	P08236	GUSB	1.02E+05
P08237	P08237	PFKM	3.61E+03
P08238	P08238	HSP90AB1	1.63E+05
P08246	P08246	ELANE	2.18E+05
P08253	P08253	MMP2	2.03E+04
P08294	P08294	SOD3	1.75E+05
P08311	P08311	CTSG	1.15E+04
P08473	P08473	MME	5.30E+05
P08476	P08476	INHBA	2.22E+04
P08493	P08493	MGP	4.25E+04
P08519	P08519	LPA	7.30E+04
P08571	P08571	CD14	4.61E+06
P08572	P08572	COL4A2	1.06E+05
P08575	P08575	PTPRC	Filtered
P08582	P08582	MELTF	2.42E+04
P08603	P08603	CFH	9.69E+04
P08637	P08637	FCGR3A	1.63E+05
P08670	P08670	VIM	2.94E+04
P08697	P08697	SERPINF2	1.83E+05
P08708	P08708	RPS17	Filtered
P08709	P08709	F7	Filtered
P08727	P08727	KRT19	4.12E+04
P08729	P08729	KRT7	1.33E+04
P08754	P08754	GNAI3	3.89E+04

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P10114;P61225;Q9Y3L5	P10114;P61225;Q9Y3L5	RAP2A;RAP2B;RAP2C	2.42E+04
P10153	P10153	RNASE2	1.09E+06
P10155	P10155	TROVE2	2.44E+03
P10253	P10253	GAA	2.71E+05
P10301	P10301	RRAS	3.72E+04
P10412	P10412	HIST1H1E	Filtered
P10451	P10451	SPP1	1.80E+06
P10586	P10586	PTPRF	5.42E+03
P10599	P10599	TXN	6.72E+04
P10600	P10600	TGFB3	Filtered
P10619	P10619	CTSA	8.82E+04
P10643	P10643	C7	1.95E+05
P10645	P10645	CHGA	1.03E+04
P10646	P10646	TFPI	9.95E+03
P10721	P10721	KIT	Filtered
P10768	P10768	ESD	2.57E+04
P10809	P10809	HSPD1	Filtered
P10909	P10909	CLU	5.75E+05
P11021	P11021	HSPA5	2.64E+04
P11047	P11047	LAMC1	2.78E+04
P11117	P11117	ACP2	1.57E+05
P11142	P11142	HSPA8	1.48E+05
P11166	P11166	SLC2A1	Filtered
P11172	P11172	UMPS	Filtered
P11177	P11177	PDHB	Filtered
P11215	P11215	ITGAM	3.39E+03
P11216	P11216	PYGB	2.60E+04
P11233	P11233	RALA	1.66E+04
P11234	P11234	RALB	4.60E+04
P11279	P11279	LAMP1	2.79E+06
P11413	P11413	G6PD	4.98E+03
P11586	P11586	MTHFD1	1.36E+04
P11597	P11597	CETP	7.09E+04
P11684	P11684	SCGB1A1	4.23E+05
P11717	P11717	IGF2R	4.57E+04
P11766	P11766	ADH5	4.18E+04
P11908;P60891	P11908;P60891	PRPS2;PRPS1	4.00E+03
P11940	P11940	PABPC1	5.87E+03
P12036	P12036	NEFH	Filtered
P12081	P12081	HARS	8.71E+03
P12109	P12109	COL6A1	1.03E+05
P12110	P12110	COL6A2	3.28E+04
P12111	P12111	COL6A3	1.46E+05
P12259	P12259	F5	7.55E+03
P12268	P12268	IMPDH2	4.15E+03
P12273	P12273	PIP	2.84E+04
P12277	P12277	CKB	1.14E+05

P12429	P12429	ANXA3	7.03E+04
P12724	P12724	RNASE3	4.48E+04
P12814	P12814	ACTN1	1.87E+04
P12821	P12821	ACE	6.05E+04
P12830	P12830	CDH1	1.80E+06
P12931	P12931	SRC	3.20E+04
P12955	P12955	PEPD	3.03E+04
P13073	P13073	COX4I1	2.09E+03
P13164;Q01628;Q01629	P13164;Q01628;Q01629	IFITM1;IFITM3;IFITM2	3.14E+04
P13224	P13224	GP1BB	2.99E+03
P13284	P13284	IFI30	1.10E+04
P13473	P13473	LAMP2	4.13E+05
P13489	P13489	RNH1	5.58E+04
P13591	P13591	NCAM1	3.48E+04
P13598	P13598	ICAM2	2.64E+05
P13611	P13611	VCAN	9.14E+03
P13639	P13639	EEF2	8.40E+04
P13645	P13645	KRT10	4.94E+05
P13646	P13646	KRT13	6.84E+04
P13647	P13647	KRT5	2.16E+04
P13671	P13671	C6	3.71E+04
P13688	P13688	CEACAM1	1.15E+04
P13693	P13693	TPT1	8.36E+03
P13716	P13716	ALAD	1.77E+04
P13727	P13727	PRG2	1.45E+05
P13796	P13796	LCP1	5.23E+04
P13797	P13797	PLS3	1.61E+04
P13798	P13798	APEH	2.07E+04
P13807	P13807	GYS1	Filtered
P13861	P13861	PRKAR2A	4.36E+04
P13866	P13866	SLC5A1	7.42E+04
P13987	P13987	CD59	1.71E+07
P14151	P14151	SELL	1.05E+05
P14174	P14174	MIF	Filtered
P14207	P14207	FOLR2	1.80E+05
P14314	P14314	PRKCSH	1.75E+04
P14324	P14324	FDPS	1.73E+04
P14384	P14384	CPM	6.29E+04
P14406	P14406	COX7A2	3.04E+03
P14410	P14410	SI	Filtered
P14543	P14543	NID1	5.34E+05
P14550	P14550	AKR1A1	3.48E+04
P14555	P14555	PLA2G2A	5.77E+04
P14618	P14618	PKM	2.07E+05
P14621	P14621	ACYP2	Filtered
P14625	P14625	HSP90B1	2.47E+04
P14778	P14778	IL1R1	6.28E+03

P14780	P14780	MMP9	1.67E+04
P14784	P14784	IL2RB	3.62E+03
P14868	P14868	DARS	3.86E+03
P14923	P14923	JUP	1.15E+03
P15086	P15086	CPB1	2.15E+04
P15090	P15090	FABP4	7.44E+03
P15121	P15121	AKR1B1	6.66E+03
P15144	P15144	ANPEP	1.10E+06
P15151	P15151	PVR	1.94E+05
P15169	P15169	CPN1	6.92E+03
P15170	P15170	GSPT1	Filtered
P15289	P15289	ARSA	7.55E+04
P15309	P15309	ACPP	1.68E+06
P15311	P15311	EZR	7.11E+04
P15313	P15313	ATP6V1B1	8.95E+03
P15328	P15328	FOLR1	8.66E+04
P15374	P15374	UCHL3	1.63E+04
P15428	P15428	HPGD	9.07E+03
P15531	P15531	NME1	2.42E+04
P15586	P15586	GNS	1.09E+06
P15692	P15692	VEGFA	1.52E+04
P15735	P15735	PHKG2	Filtered
P15848	P15848	ARSB	1.89E+04
P15880	P15880	RPS2	Filtered
P15907	P15907	ST6GAL1	1.72E+04
P15924	P15924	DSP	6.68E+03
P15941	P15941	MUC1	9.37E+04
P16035	P16035	TIMP2	4.44E+04
P16070	P16070	CD44	1.15E+06
P16083	P16083	NQO2	4.42E+04
P16112	P16112	ACAN	9.94E+04
P16152	P16152	CBR1	3.26E+04
P16190	P16190	HLA-A	Filtered
P16220;P18846	P16220;P18846	CREB1;ATF1	Filtered
P16234	P16234	PDGFRA	Filtered
P16278	P16278	GLB1	5.92E+04
P16284	P16284	PECAM1	1.36E+05
P16422	P16422	EPCAM	Filtered
P16444	P16444	DPEP1	1.66E+05
P16870	P16870	CPE	3.52E+05
P16930	P16930	FAH	3.68E+04
P16949;Q93045	P16949;Q93045	STMN1;STMN2	Filtered
P17050	P17050	NAGA	3.84E+05
P17174	P17174	GOT1	1.01E+04
P17181	P17181	IFNAR1	2.29E+04
P17213	P17213	BPI	1.89E+04
P17342	P17342	NPR3	6.74E+03

P17405	P17405	SMPD1	4.72E+03
P17612;P22694	P17612;P22694	PRKACA;PRKACB	2.09E+03
P17643	P17643	TYRP1	5.47E+03
P17655	P17655	CAPN2	2.00E+04
P17707	P17707	AMD1	Filtered
P17813	P17813	ENG	2.39E+04
P17858	P17858	PFKL	4.05E+03
P17900	P17900	GM2A	3.21E+06
P17927	P17927	CR1	3.12E+04
P17931	P17931	LGALS3	1.03E+05
P17936	P17936	IGFBP3	1.09E+05
P17980	P17980	PSMC3	5.42E+03
P17987	P17987	TCP1	2.15E+04
P18065	P18065	IGFBP2	1.75E+05
P18077	P18077	RPL35A	Filtered
P18084	P18084	ITGB5	Filtered
P18085	P18085	ARF4	3.47E+04
P18206	P18206	VCL	1.33E+04
P18428	P18428	LBP	1.60E+04
P18669	P18669	PGAM1	2.90E+04
P18827	P18827	SDC1	5.00E+04
P19013	P19013	KRT4	2.51E+04
P19021	P19021	PAM	3.00E+04
P19022	P19022	CDH2	3.25E+05
P19075	P19075	TSPAN8	1.39E+05
P19256	P19256	CD58	1.01E+05
P19320	P19320	VCAM1	4.32E+05
P19438	P19438	TNFRSF1A	1.71E+04
P19440	P19440	GGT1	1.81E+05
P19623	P19623	SRM	Filtered
P19652	P19652	ORM2	8.18E+06
P19801	P19801	AOC1	5.27E+04
P19823	P19823	ITIH2	4.89E+04
P19827	P19827	ITIH1	3.67E+04
P19835	P19835	CEL	1.83E+05
P19971	P19971	TYMP	8.44E+04
P20042	P20042	EIF2S2	Filtered
P20062	P20062	TCN2	3.78E+04
P20073	P20073	ANXA7	2.60E+04
P20138	P20138	CD33	8.31E+04
P20142	P20142	PGC	3.22E+05
P20151	P20151	KLK2	1.09E+05
P20160	P20160	AZU1	2.43E+05
P20333	P20333	TNFRSF1B	2.94E+04
P20336	P20336	RAB3A	Filtered
P20337	P20337	RAB3B	9.73E+04
P20338	P20338	RAB4A	6.30E+03

P20340;Q9NRW1	P20340;Q9NRW1	RAB6A;RAB6B	6.59E+02
P20618	P20618	PSMB1	5.78E+03
P20645	P20645	M6PR	1.73E+04
P20711	P20711	DDC	1.19E+04
P20774	P20774	OGN	1.29E+05
P20810	P20810	CAST	1.81E+03
P20827	P20827	EFNA1	6.07E+04
P20851	P20851	C4BPB	1.01E+04
P20916	P20916	MAG	Filtered
P20930	P20930	FLG	3.51E+04
P20933	P20933	AGA	8.16E+04
P21266	P21266	GSTM3	4.10E+04
P21281	P21281	ATP6V1B2	3.74E+04
P21283	P21283	ATP6V1C1	7.93E+03
P21291	P21291	CSRP1	1.83E+03
P21333	P21333	FLNA	1.27E+05
P21399	P21399	ACO1	4.30E+04
P21579	P21579	SYT1	4.47E+03
P21583	P21583	KITLG	1.41E+04
P21589	P21589	NT5E	Filtered
P21695	P21695	GPD1	Filtered
P21709	P21709	EPHA1	7.35E+04
P21741	P21741	MDK	2.99E+04
P21796	P21796	VDAC1	2.60E+04
P21802	P21802	FGFR2	6.99E+04
P21810	P21810	BGN	8.75E+04
P21926	P21926	CD9	3.03E+05
P21964	P21964	COMT	1.13E+04
P21980	P21980	TGM2	3.57E+04
P22004	P22004	BMP6	Filtered
P22061	P22061	PCMT1	3.25E+04
P22102	P22102	GART	Filtered
P22105	P22105	TNXB	1.02E+05
P22223	P22223	CDH3	9.65E+04
P22234	P22234	PAICS	2.69E+04
P22304	P22304	IDS	1.08E+04
P22314	P22314	UBA1	3.64E+04
P22352	P22352	GPX3	1.55E+05
P22528	P22528	SPRR1B	2.39E+04
1;P22532;P35325;P35326;C1;P22532;P35325;P35326;C;	SPRR2D;SPRR2B;SPRR2A;S		5.18E+04
P22607	P22607	FGFR3	6.10E+03
P22626	P22626	HNRNPA2B1	Filtered
P22692	P22692	IGFBP4	1.57E+04
P22732	P22732	SLC2A5	1.64E+04
P22735	P22735	TGM1	Filtered
P22748	P22748	CA4	Filtered
P22792	P22792	CPN2	1.54E+05

P22891	P22891	PROZ	5.89E+04
P22894	P22894	MMP8	Filtered
P22897	P22897	MRC1	2.08E+04
P23083	P23083	IGHV1-2	2.27E+04
P23142	P23142	FBLN1	4.31E+05
P23246	P23246	SFPQ	Filtered
P23284	P23284	PPIB	7.72E+04
P23352	P23352	ANOS1	4.03E+03
P23381	P23381	WARS	3.76E+03
P23396	P23396	RPS3	1.89E+04
P23434	P23434	GCSH	6.79E+04
P23468	P23468	PTPRD	2.46E+04
P23470	P23470	PTPRG	1.26E+05
P23490	P23490	LOR	Filtered
P23526	P23526	AHCY	3.44E+04
P23528	P23528	CFL1	7.39E+04
P23588	P23588	EIF4B	Filtered
P24043	P24043	LAMA2	3.44E+03
P24298	P24298	GPT	4.16E+03
P24387	P24387	CRHBP	Filtered
P24530	P24530	EDNRB	Filtered
P24592	P24592	IGFBP6	2.63E+04
P24593	P24593	IGFBP5	4.84E+04
P24666	P24666	ACP1	3.83E+04
P24752	P24752	ACAT1	1.55E+03
P24821	P24821	TNC	6.30E+04
P24855	P24855	DNASE1	7.41E+04
P25098	P25098	GRK2	7.19E+03
P25311	P25311	AZGP1	7.50E+07
P25325	P25325	MPST	8.24E+04
P25398	P25398	RPS12	1.88E+04
P25685	P25685	DNAJB1	Filtered
P25705	P25705	ATP5F1A	2.18E+05
P25774	P25774	CTSS	5.80E+04
P25786	P25786	PSMA1	2.03E+04
P25787	P25787	PSMA2	1.31E+04
P25788	P25788	PSMA3	2.40E+04
P25789	P25789	PSMA4	3.87E+04
P25815	P25815	S100P	4.69E+04
P25940	P25940	COL5A3	3.62E+04
P25942	P25942	CD40	1.52E+05
P26038	P26038	MSN	3.85E+04
P26373	P26373	RPL13	7.57E+03
P26447	P26447	S100A4	2.68E+03
P26639	P26639	TARS	8.35E+03
P26641	P26641	EEF1G	1.13E+04
P26842	P26842	CD27	2.58E+05

P26927	P26927	MST1	7.12E+04
P26992	P26992	CNTFR	2.70E+05
P27105	P27105	STOM	6.36E+04
P27169	P27169	PON1	4.42E+04
P27216	P27216	ANXA13	Filtered
P27348	P27348	YWHAQ	5.78E+04
P27361	P27361	MAPK3	Filtered
P27449	P27449	ATP6V0C	Filtered
P27482	P27482	CALML3	8.92E+04
P27487	P27487	DPP4	1.51E+06
P27635	P27635	RPL10	Filtered
P27797	P27797	CALR	5.49E+04
P27824	P27824	CANX	9.48E+03
P27918	P27918	CFP	Filtered
P27930	P27930	IL1R2	8.03E+03
P28062	P28062	PSMB8	4.35E+03
P28065	P28065	PSMB9	Filtered
P28066	P28066	PSMA5	6.29E+04
P28068	P28068	HLA-DMB	Filtered
P28070	P28070	PSMB4	5.94E+03
P28072	P28072	PSMB6	4.08E+04
P28074	P28074	PSMB5	5.94E+03
P28161;P46439	P28161;P46439	GSTM2;GSTM5	7.90E+04
P28300	P28300	LOX	8.52E+03
P28332	P28332	ADH6	Filtered
P28482	P28482	MAPK1	1.54E+04
P28799	P28799	GRN	3.83E+05
P28827	P28827	PTPRM	1.31E+04
P28838	P28838	LAP3	2.73E+04
P28907	P28907	CD38	2.99E+04
P28908	P28908	TNFRSF8	Filtered
P29034	P29034	S100A2	4.05E+03
P29218	P29218	IMPA1	1.33E+04
P29279	P29279	CTGF	1.22E+05
P29317	P29317	EPHA2	1.37E+04
P29323	P29323	EPHB2	3.50E+04
P29350	P29350	PTPN6	Filtered
P29373	P29373	CRABP2	Filtered
P29401	P29401	TKT	2.40E+04
P29508	P29508	SERPINB3	2.60E+04
P29622	P29622	SERPINA4	3.44E+04
P29692	P29692	EEF1D	Filtered
P29728	P29728	OAS2	5.63E+03
P29966	P29966	MARCKS	2.76E+04
P29972	P29972	AQP1	3.16E+03
P29992	P29992	GNA11	2.07E+04
P30038	P30038	ALDH4A1	4.40E+03

P30039	P30039	PBLD	1.53E+04
P30040	P30040	ERP29	9.00E+03
P30041	P30041	PRDX6	1.41E+05
P30043	P30043	BLVRB	1.17E+05
P30044	P30044	PRDX5	3.02E+04
P30047	P30047	GCHFR	1.65E+04
P30048	P30048	PRDX3	Filtered
P30050	P30050	RPL12	8.52E+03
P30085	P30085	CMPK1	9.57E+03
P30086	P30086	PEBP1	2.16E+05
P30101	P30101	PDIA3	6.44E+04
P30153	P30153	PPP2R1A	1.23E+04
P30408	P30408	TM4SF1	9.04E+04
P30508;Q07000	P30508;Q07000	HLA-C	3.08E+05
P30520	P30520	ADSS	5.18E+03
P30530	P30530	AXL	3.35E+05
P30622	P30622	CLIP1	Filtered
P30626	P30626	SRI	4.81E+04
P30711	P30711	GSTT1	1.72E+04
P30740	P30740	SERPINB1	4.88E+04
P31025	P31025	LCN1	1.31E+05
P31146	P31146	CORO1A	2.06E+03
P31150	P31150	GDI1	2.97E+04
P31151	P31151	S100A7	1.11E+05
P31153	P31153	MAT2A	1.16E+04
P31431	P31431	SDC4	4.42E+04
P31639	P31639	SLC5A2	1.07E+04
P31689	P31689	DNAJA1	Filtered
P31939	P31939	ATIC	3.18E+04
P31944	P31944	CASP14	3.29E+04
P31946	P31946	YWHAB	7.67E+04
P31947	P31947	SFN	5.59E+04
P31948	P31948	STIP1	1.82E+04
P31949	P31949	S100A11	1.16E+05
P31997	P31997	CEACAM8	2.34E+04
P32004	P32004	L1CAM	1.70E+04
P32119	P32119	PRDX2	9.69E+04
P32189;Q14409	P32189;Q14409	GK;GK3P	Filtered
P32241	P32241	VIPR1	1.98E+03
P32754	P32754	HPD	9.08E+03
P32926	P32926	DSG3	8.18E+03
P32929	P32929	CTH	7.13E+03
P32942	P32942	ICAM3	1.16E+04
P33121	P33121	ACSL1	Filtered
P33151	P33151	CDH5	6.84E+04
P33176	P33176	KIF5B	9.25E+03
P33908	P33908	MAN1A1	1.12E+05

P34059	P34059	GALNS	3.69E+04
P34096	P34096	RNASE4	4.75E+04
P34741	P34741	SDC2	Filtered
P34896	P34896	SHMT1	3.55E+04
P34913	P34913	EPHX2	2.06E+04
P34925	P34925	RYK	5.13E+03
P34932	P34932	HSPA4	1.17E+04
P35052	P35052	GPC1	1.30E+04
P35080	P35080	PFN2	1.08E+05
P35221	P35221	CTNNA1	Filtered
P35222	P35222	CTNNB1	2.91E+03
P35237	P35237	SERPINB6	3.33E+04
P35241	P35241	RDX	3.32E+04
P35268	P35268	RPL22	2.75E+04
P35270	P35270	SPR	1.28E+04
P35318	P35318	ADM	1.27E+05
P35321	P35321	SPRR1A	8.25E+04
P35442	P35442	THBS2	4.84E+03
P35443	P35443	THBS4	2.67E+04
P35475	P35475	IDUA	Filtered
P35527	P35527	KRT9	2.55E+05
P35542	P35542	SAA4	6.38E+03
P35555	P35555	FBN1	6.75E+05
P35556	P35556	FBN2	8.96E+03
P35558	P35558	PCK1	1.25E+04
P35573	P35573	AGL	7.51E+04
P35579	P35579	MYH9	1.96E+04
P35606	P35606	COPB2	4.32E+04
P35613	P35613	BSG	7.88E+04
P35754	P35754	GLRX	7.94E+03
P35813	P35813	PPM1A	4.20E+03
P35858	P35858	IGFALS	5.42E+04
P35908	P35908	KRT2	2.41E+05
P35998	P35998	PSMC2	7.77E+03
P36222	P36222	CHI3L1	9.56E+03
P36405	P36405	ARL3	8.78E+03
P36507;Q02750	P36507;Q02750	MAP2K2;MAP2K1	Filtered
P36543	P36543	ATP6V1E1	Filtered
P36639	P36639	NUDT1	7.45E+04
P36871	P36871	PGM1	2.62E+04
P36896	P36896	ACVR1B	4.69E+04
P36897	P36897	TGFBR1	Filtered
P36955	P36955	SERPINF1	7.29E+04
P36957	P36957	DLST	1.13E+05
P36959	P36959	GMPR	2.40E+04
P36969	P36969	GPX4	1.82E+04
P36980	P36980	CFHR2	1.20E+05

P37173	P37173	TGFBR2	7.99E+04
P37802	P37802	TAGLN2	9.03E+03
P37837	P37837	TALDO1	2.16E+04
P38571	P38571	LIPA	8.49E+03
P38606	P38606	ATP6V1A	2.61E+04
P38646	P38646	HSPA9	Filtered
P39019	P39019	RPS19	Filtered
P39059	P39059	COL15A1	7.74E+04
P39060	P39060	COL18A1	8.95E+04
P40121	P40121	CAPG	3.29E+04
P40189	P40189	IL6ST	2.14E+04
P40199	P40199	CEACAM6	4.86E+04
P40227	P40227	CCT6A	1.71E+04
P40429;Q6NVV1	P40429;Q6NVV1	RPL13A;RPL13AP3	1.22E+03
P40616	P40616	ARL1	5.25E+03
P40763	P40763	STAT3	1.08E+04
P40925	P40925	MDH1	1.77E+05
P40926	P40926	MDH2	1.52E+04
P41091	P41091	EIF2S3	2.96E+03
P41181	P41181	AQP2	5.72E+04
P41217	P41217	CD200	Filtered
P41218	P41218	MNDA	Filtered
P41222	P41222	PTGDS	1.90E+07
P41271	P41271	NBL1	6.25E+04
P42025	P42025	ACTR1B	Filtered
P42126	P42126	ECI1	Filtered
P42224	P42224	STAT1	Filtered
P42566	P42566	EPS15	Filtered
P42685	P42685	FRK	1.30E+03
P42702	P42702	LIFR	1.96E+04
P42765	P42765	ACAA2	Filtered
P42766	P42766	RPL35	Filtered
P42785	P42785	PRCP	6.76E+04
P43034	P43034	PAFAH1B1	8.88E+03
P43115	P43115	PTGER3	6.38E+04
P43121	P43121	MCAM	1.94E+05
P43234	P43234	CTSO	1.14E+04
P43251	P43251	BTD	8.93E+04
P43405	P43405	SYK	6.63E+03
P43487	P43487	RANBP1	Filtered
P43490	P43490	NAMPT	4.12E+04
};P43629;P43631;P43632;Q;P43629;P43631;P43632;Q;KIR3DL1;KIR2DS2;KIR2DS4;			4.98E+04
P43652	P43652	AFM	4.79E+05
P45381	P45381	ASPA	Filtered
P45877	P45877	PPIC	8.44E+03
P45880	P45880	VDAC2	2.15E+03
P45974	P45974	USP5	1.35E+04

P46459	P46459	NSF	8.36E+03
P46531	P46531	NOTCH1	Filtered
P46776	P46776	RPL27A	Filtered
P46777	P46777	RPL5	Filtered
P46926	P46926	GNPDA1	7.96E+03
P46940	P46940	IQGAP1	1.40E+04
P46952	P46952	HAAO	Filtered
P46976	P46976	GYG1	Filtered
P47755	P47755	CAPZA2	Filtered
P47756	P47756	CAPZB	2.74E+04
P47813	P47813	EIF1AX	Filtered
P47895	P47895	ALDH1A3	2.76E+04
P47897	P47897	QARS	Filtered
P47914	P47914	RPL29	Filtered
P48059	P48059	LIMS1	Filtered
P48061	P48061	CXCL12	1.64E+04
P48304	P48304	REG1B	7.45E+03
P48444	P48444	ARCN1	Filtered
P48449	P48449	LSS	Filtered
P48506	P48506	GCLC	Filtered
P48509	P48509	CD151	9.32E+04
P48551	P48551	IFNAR2	5.88E+05
P48594	P48594	SERPINB4	1.23E+05
P48595	P48595	SERPINB10	Filtered
P48637	P48637	GSS	2.92E+04
P48643	P48643	CCT5	6.76E+03
P48735	P48735	IDH2	3.78E+03
P48739	P48739	PITPNB	Filtered
P48740	P48740	MASP1	4.77E+04
P48745	P48745	NOV	2.66E+05
P48960	P48960	CD97	Filtered
P49006	P49006	MARCKSL1	3.07E+04
P49184	P49184	DNASE1L1	4.69E+03
P49189	P49189	ALDH9A1	3.47E+04
P49221	P49221	TGM4	2.38E+03
P49257	P49257	LMAN1	3.45E+03
P49327	P49327	FASN	5.08E+04
P49354	P49354	FNTA	2.38E+03
P49368	P49368	CCT3	3.30E+04
P49407	P49407	ARRB1	5.20E+03
P49411	P49411	TUFM	Filtered
P49418	P49418	AMPH	1.03E+04
P49419	P49419	ALDH7A1	4.01E+04
P49447	P49447	CYB561	6.36E+04
P49588	P49588	AARS	1.64E+04
P49591	P49591	SARS	7.92E+03
P49641	P49641	MAN2A2	Filtered

P49720	P49720	PSMB3	1.88E+04
P49721	P49721	PSMB2	1.01E+04
P49747	P49747	COMP	6.65E+04
P49748	P49748	ACADVL	Filtered
P49755	P49755	TMED10	3.32E+04
P49768	P49768	PSEN1	Filtered
P49773	P49773	HINT1	5.03E+04
P49788	P49788	RARRES1	4.67E+04
P49902	P49902	NT5C2	Filtered
P49908	P49908	SELENOP	1.55E+05
P49913	P49913	CAMP	5.42E+04
P49914	P49914	MTHFS	Filtered
P50053	P50053	KHK	1.75E+04
P50148	P50148	GNAQ	1.23E+04
P50150	P50150	GNG4	Filtered
P50151	P50151	GNG10	Filtered
P50395	P50395	GDI2	4.45E+04
P50416	P50416	CPT1A	9.86E+02
P50452	P50452	SERPINB8	Filtered
P50502	P50502	ST13	4.11E+04
P50570	P50570	DNM2	3.71E+03
P50583	P50583	NUDT2	Filtered
P50851	P50851	LRBA	Filtered
P50895	P50895	BCAM	8.88E+04
P50897	P50897	PPT1	3.68E+04
P50990	P50990	CCT8	1.95E+04
P50991	P50991	CCT4	2.24E+04
P50995	P50995	ANXA11	3.80E+04
P51148	P51148	RAB5C	3.62E+03
P51149	P51149	RAB7A	4.97E+04
P51151	P51151	RAB9A	5.88E+03
P51153	P51153	RAB13	4.24E+05
P51159	P51159	RAB27A	4.05E+05
P51170	P51170	SCNN1G	5.52E+03
P51178	P51178	PLCD1	Filtered
P51452	P51452	DUSP3	Filtered
P51511	P51511	MMP15	Filtered
P51570	P51570	GALK1	5.88E+03
P51571	P51571	SSR4	2.46E+03
P51606	P51606	RENBP	4.70E+03
P51654	P51654	GPC3	1.36E+04
P51659	P51659	HSD17B4	Filtered
P51665	P51665	PSMD7	2.02E+05
P51688	P51688	SGSH	1.91E+05
P51812;Q15349	P51812;Q15349	RPS6KA3;RPS6KA2	3.97E+03
P51884	P51884	LUM	2.69E+05
P51991	P51991	HNRNPA3	2.98E+04

P52209	P52209	PGD	3.32E+04
P52434	P52434	POLR2H	1.11E+04
P52564	P52564	MAP2K6	Filtered
P52565	P52565	ARHGDIA	3.25E+04
P52566	P52566	ARHGDIB	Filtered
P52758	P52758	RIDA	1.90E+04
P52788	P52788	SMS	1.00E+05
P52823	P52823	STC1	3.00E+04
P52907	P52907	CAPZA1	5.15E+04
P52943	P52943	CRIP2	1.74E+03
P53004	P53004	BLVRA	3.56E+03
P53367	P53367	ARFIP1	1.31E+05
P53384	P53384	NUBP1	5.31E+03
P53396	P53396	ACLY	2.30E+04
P53582	P53582	METAP1	Filtered
P53597	P53597	SUCLG1	Filtered
P53602	P53602	MVD	1.08E+04
P53618	P53618	COPB1	Filtered
P53621	P53621	COPA	9.05E+03
P53634	P53634	CTSC	2.32E+05
P53801	P53801	PTTG1IP	2.95E+03
P53985	P53985	SLC16A1	1.20E+04
P53990	P53990	IST1	8.33E+04
P54108	P54108	CRISP3	9.26E+04
P54136	P54136	RARS	Filtered
P54289	P54289	CACNA2D1	1.01E+04
P54578	P54578	USP14	8.01E+03
P54652	P54652	HSPA2	6.25E+04
P54709	P54709	ATP1B3	Filtered
P54710	P54710	FXVD2	3.59E+04
P54727	P54727	RAD23B	2.13E+04
P54753	P54753	EPHB3	5.03E+04
P54760	P54760	EPHB4	2.08E+05
P54764	P54764	EPHA4	3.96E+04
P54793	P54793	ARSF	2.21E+04
P54802	P54802	NAGLU	2.41E+05
P54803	P54803	GALC	1.69E+04
P54826	P54826	GAS1	1.14E+05
P54920	P54920	NAPA	2.24E+04
P55000	P55000	SLURP1	5.31E+05
P55011	P55011	SLC12A2	Filtered
P55017	P55017	SLC12A3	5.65E+03
P55036	P55036	PSMD4	Filtered
P55060	P55060	CSE1L	1.00E+04
P55072	P55072	VCP	3.12E+04
P55084	P55084	HADHB	Filtered
P55103	P55103	INHBC	1.70E+03

P55107	P55107	GDF10	6.93E+04
P55212	P55212	CASP6	Filtered
P55259	P55259	GP2	1.51E+05
P55268	P55268	LAMB2	2.46E+04
P55285	P55285	CDH6	1.21E+05
P55287	P55287	CDH11	1.69E+05
P55290	P55290	CDH13	1.15E+06
P55291	P55291	CDH15	4.36E+04
P55327	P55327	TPD52	Filtered
P55735	P55735	SEC13	Filtered
P55786	P55786	NPEPPS	3.13E+04
P55854;P61956;Q6EEV6	P55854;P61956;Q6EEV6	SUMO3;SUMO2;SUMO4	1.25E+04
P55884	P55884	EIF3B	8.09E+03
P55957	P55957	BID	3.35E+04
P56159	P56159	GFRA1	6.15E+04
P56537	P56537	EIF6	1.34E+05
P57721;Q15366	P57721;Q15366	PCBP3;PCBP2	Filtered
P57735	P57735	RAB25	7.16E+04
P57739	P57739	CLDN2	Filtered
P58499	P58499	FAM3B	2.36E+04
P58546	P58546	MTPN	1.49E+04
P59665;P59666	P59665;P59666	DEFA1;DEFA3	6.50E+07
P59998	P59998	ARPC4	4.42E+04
P60022	P60022	DEFB1	4.21E+06
P60033	P60033	CD81	3.62E+03
P60174	P60174	TPI1	1.15E+05
P60660	P60660	MYL6	1.72E+05
P60709;P63261	P60709;P63261	ACTB;ACTG1	1.13E+06
P60866	P60866	RPS20	8.48E+03
P60900	P60900	PSMA6	3.45E+04
P60903	P60903	S100A10	2.72E+03
P60953	P60953	CDC42	1.27E+05
P60981	P60981	DSTN	1.70E+05
P60983	P60983	GMFB	1.10E+04
P61006	P61006	RAB8A	1.89E+04
P61011	P61011	SRP54	Filtered
P61019	P61019	RAB2A	4.69E+04
P61020	P61020	RAB5B	7.09E+04
P61026	P61026	RAB10	4.29E+04
P61081	P61081	UBE2M	Filtered
P61086	P61086	UBE2K	Filtered
P61088;Q5JXB2	P61088;Q5JXB2	UBE2N;UBE2NL	1.15E+05
P61106	P61106	RAB14	9.98E+03
P61158	P61158	ACTR3	2.34E+04
P61160	P61160	ACTR2	2.58E+04
P61201	P61201	COPS2	2.59E+03
P61204;P84077	P61204;P84077	ARF3;ARF1	3.45E+04

P61224	P61224	RAP1B	1.57E+04
P61247	P61247	RPS3A	5.31E+03
P61421	P61421	ATP6VOD1	Filtered
P61457	P61457	PCBD1	3.97E+04
P61586	P61586	RHOA	1.93E+05
P61604	P61604	HSPE1	3.92E+03
P61626	P61626	LYZ	1.48E+05
P61764	P61764	STXBP1	6.59E+03
P61769	P61769	B2M	2.30E+06
P61916	P61916	NPC2	8.99E+05
P61966	P61966	AP1S1	2.00E+03
P61970	P61970	NUTF2	3.24E+05
P61978	P61978	HNRNPK	5.37E+03
P61981	P61981	YWHAG	4.39E+04
P62136	P62136	PPP1CA	1.17E+04
P62140	P62140	PPP1CB	4.71E+04
P62191	P62191	PSMC1	Filtered
P62195	P62195	PSMC5	Filtered
P62241	P62241	RPS8	Filtered
P62244	P62244	RPS15A	8.74E+03
P62249	P62249	RPS16	1.49E+04
P62258	P62258	YWHAЕ	7.78E+04
P62263	P62263	RPS14	Filtered
P62269	P62269	RPS18	1.30E+04
P62277	P62277	RPS13	1.27E+04
P62280	P62280	RPS11	Filtered
P62310	P62310	LSM3	3.93E+03
P62318	P62318	SNRPD3	Filtered
P62328	P62328	TMSB4X	3.51E+04
P62330	P62330	ARF6	1.11E+04
P62333	P62333	PSMC6	Filtered
P62424	P62424	RPL7A	Filtered
P62491;Q15907	P62491;Q15907	RAB11A;RAB11B	1.81E+05
P62633	P62633	CNBP	Filtered
P62714;P67775	P62714;P67775	PPP2CB;PPP2CA	1.37E+03
2736;P63267;P68032;P6812736;P63267;P68032;P681\ACTA2;ACTG2;ACTC1;ACTA:			Filtered
P62750	P62750	RPL23A	1.06E+04
P62753	P62753	RPS6	Filtered
P62805	P62805	HIST1H4A	Filtered
P62820	P62820	RAB1A	2.43E+04
P62826	P62826	RAN	2.64E+04
P62829	P62829	RPL23	1.80E+03
P62834	P62834	RAP1A	4.98E+04
P62851	P62851	RPS25	Filtered
P62857	P62857	RPS28	7.05E+03
P62873	P62873	GNB1	1.38E+05
P62879	P62879	GNB2	8.69E+04

P62888	P62888	RPL30	Filtered
P62906	P62906	RPL10A	Filtered
P62913	P62913	RPL11	Filtered
P62917	P62917	RPL8	5.03E+03
P62937	P62937	PPIA	1.58E+05
P62942	P62942	FKBP1A	5.86E+04
P62993	P62993	GRB2	2.67E+03
P63000	P63000	RAC1	9.97E+04
P63010	P63010	AP2B1	Filtered
P63092;Q5JWF2	P63092;Q5JWF2	GNAS	1.94E+04
P63096	P63096	GNAI1	5.76E+04
P63104	P63104	YWHAZ	1.14E+05
P63151;Q9Y2T4	P63151;Q9Y2T4	PPP2R2A;PPP2R2C	Filtered
P63167	P63167	DYNLL1	Filtered
P63208	P63208	SKP1	2.45E+04
P63218	P63218	GNG5	1.41E+04
P63220	P63220	RPS21	Filtered
P63241	P63241	EIF5A	2.03E+04
P63244	P63244	RACK1	9.28E+03
P67809	P67809	YBX1	Filtered
P68104;Q5VTE0	P68104;Q5VTE0	EEF1A1;EEF1A1P5	2.07E+05
P68363;Q71U36;Q9BQE3	P68363;Q71U36;Q9BQE3	TUBA1B;TUBA1A;TUBA1C	1.25E+05
P68366	P68366	TUBA4A	2.92E+04
P68371	P68371	TUBB4B	6.41E+04
8431;P84243;Q16695;Q71L8431;P84243;Q16695;Q71L1H3A;H3F3A;HIST3H3;HIST3H3			3.20E+04
P68871	P68871	HBB	4.16E+05
P69849;Q15155;Q5JPE7	P69849;Q15155;Q5JPE7	NOMO3;NOMO1;NOMO2	7.82E+02
P69905	P69905	HBA1	3.19E+05
P78310	P78310	CXADR	1.78E+04
P78324	P78324	SIRPA	2.56E+05
P78330	P78330	PSPH	1.99E+03
P78371	P78371	CCT2	Filtered
P78380	P78380	OLR1	2.84E+04
P78417	P78417	GSTO1	4.66E+04
P78504	P78504	JAG1	6.93E+03
P78539	P78539	SRPX	Filtered
P78540	P78540	ARG2	Filtered
P78552	P78552	IL13RA1	1.71E+04
P78563	P78563	ADARB1	1.01E+05
P80108	P80108	GPLD1	4.96E+03
P80188	P80188	LCN2	1.72E+05
P80294	P80294	MT1H	1.82E+04
P80303	P80303	NUCB2	Filtered
P80370	P80370	DLK1	2.71E+05
P80511	P80511	S100A12	2.17E+04
P80723	P80723	BASP1	1.25E+05
P81605	P81605	DCD	5.70E+04

P83110	P83110	HTRA3	2.03E+04
P83731	P83731	RPL24	Filtered
P84095	P84095	RHOG	1.33E+04
P98082	P98082	DAB2	2.34E+03
P98088	P98088	MUC5AC	7.02E+02
P98095	P98095	FBLN2	3.67E+04
P98160	P98160	HSPG2	5.35E+06
P98161	P98161	PKD1	4.08E+03
P98164	P98164	LRP2	3.82E+05
P98172	P98172	EFNB1	1.52E+05
P99999	P99999	CYCS	2.64E+04
Q00325	Q00325	SLC25A3	Filtered
Q00341	Q00341	HDLBP	8.90E+03
Q00610	Q00610	CLTC	1.13E+04
Q00796	Q00796	SORD	2.87E+05
Q01082	Q01082	SPTBN1	Filtered
Q01415	Q01415	GALK2	Filtered
Q01459	Q01459	CTBS	1.69E+05
Q01469	Q01469	FABP5	6.35E+04
Q01518	Q01518	CAP1	2.34E+04
Q01581	Q01581	HMGCS1	6.67E+03
Q01813	Q01813	PFKP	Filtered
Q01973	Q01973	ROR1	5.91E+04
Q01974	Q01974	ROR2	5.60E+04
Q02083	Q02083	NAAA	1.37E+04
Q02252	Q02252	ALDH6A1	1.33E+04
Q02388	Q02388	COL7A1	2.80E+03
Q02413	Q02413	DSG1	1.99E+04
Q02487	Q02487	DSC2	1.76E+05
Q02543	Q02543	RPL18A	Filtered
Q02747	Q02747	GUCA2A	3.51E+05
Q02790	Q02790	FKBP4	1.38E+04
Q02809	Q02809	PLOD1	5.46E+03
Q02818	Q02818	NUCB1	5.13E+04
Q02952	Q02952	AKAP12	2.91E+04
Q03154	Q03154	ACY1	3.70E+04
Q03393	Q03393	PTS	Filtered
Q03403	Q03403	TFF2	1.18E+06
Q03405	Q03405	PLAUR	2.17E+04
Q03591	Q03591	CFHR1	9.13E+04
Q04446	Q04446	GBE1	3.88E+03
Q04609	Q04609	FOLH1	1.52E+04
Q04637	Q04637	EIF4G1	Filtered
Q04695	Q04695	KRT17	Filtered
Q04721	Q04721	NOTCH2	2.31E+04
Q04756	Q04756	HGFAC	6.50E+04
Q04760	Q04760	GLO1	2.50E+04

Q04771	Q04771	ACVR1	4.41E+04
Q04864	Q04864	REL	Filtered
Q04917	Q04917	YWHAH	1.38E+04
Q05655	Q05655	PRKCD	3.64E+03
Q05682	Q05682	CALD1	Filtered
Q05707	Q05707	COL14A1	3.92E+04
Q06033	Q06033	ITIH3	6.78E+03
Q06210	Q06210	GFPT1	1.01E+04
Q06278	Q06278	AOX1	Filtered
Q06323	Q06323	PSME1	2.80E+04
Q06418	Q06418	TYRO3	Filtered
Q06481	Q06481	APLP2	3.50E+04
Q06828	Q06828	FMOD	1.02E+05
Q06830	Q06830	PRDX1	3.27E+05
Q07020	Q07020	RPL18	6.08E+02
Q07075	Q07075	ENPEP	4.52E+05
Q07507	Q07507	DPT	2.45E+05
Q07654	Q07654	TFF3	1.28E+06
Q07812	Q07812	BAX	Filtered
Q07837	Q07837	SLC3A1	Filtered
Q07954	Q07954	LRP1	5.24E+04
Q07960	Q07960	ARHGAP1	Filtered
Q08174	Q08174	PCDH1	8.22E+04
Q08209	Q08209	PPP3CA	1.04E+04
Q08211	Q08211	DHX9	1.94E+06
Q08257	Q08257	CRYZ	3.24E+04
Q08334	Q08334	IL10RB	2.24E+04
Q08345	Q08345	DDR1	1.38E+05
Q08380	Q08380	LGALS3BP	1.34E+06
Q08397	Q08397	LOXL1	4.72E+04
Q08431	Q08431	MFGE8	5.44E+03
Q08554	Q08554	DSC1	9.66E+03
Q08629	Q08629	SPOCK1	1.88E+04
Q08722	Q08722	CD47	6.02E+04
Q08830	Q08830	FGL1	6.14E+03
Q09328	Q09328	MGAT5	1.72E+04
Q09666	Q09666	AHNAK	7.72E+03
Q10469	Q10469	MGAT2	Filtered
Q10471	Q10471	GALNT2	6.19E+03
Q10472	Q10472	GALNT1	Filtered
Q10567	Q10567	AP1B1	Filtered
Q10588	Q10588	BST1	1.46E+05
Q10589	Q10589	BST2	1.78E+04
Q12765	Q12765	SCRN1	8.62E+03
Q12792	Q12792	TWF1	1.77E+04
Q12794	Q12794	HYAL1	1.19E+04
Q12805	Q12805	EFEMP1	8.64E+05

Q12816;Q9UNF1	Q12816;Q9UNF1	TRO;MAGED2	Filtered
Q12841	Q12841	FSTL1	4.38E+04
Q12860	Q12860	CNTN1	4.06E+04
Q12864	Q12864	CDH17	1.21E+04
Q12904	Q12904	AIMP1	Filtered
Q12907	Q12907	LMAN2	2.89E+06
Q12913	Q12913	PTPRJ	2.53E+04
Q12929	Q12929	EPS8	1.39E+04
Q12955	Q12955	ANK3	Filtered
Q12962	Q12962	TAF10	Filtered
Q13011	Q13011	ECH1	Filtered
Q13045	Q13045	FLII	Filtered
Q13093	Q13093	PLA2G7	Filtered
Q13103	Q13103	SPP2	1.63E+03
Q13126	Q13126	MTAP	1.07E+04
Q13155	Q13155	AIMP2	Filtered
Q13162	Q13162	PRDX4	3.12E+04
Q13183	Q13183	SLC13A2	4.74E+03
Q13200	Q13200	PSMD2	Filtered
Q13201	Q13201	MMRN1	3.05E+05
Q13228	Q13228	SELENBP1	6.41E+04
Q13231	Q13231	CHIT1	1.34E+04
Q13232	Q13232	NME3	Filtered
Q13237	Q13237	PRKG2	Filtered
Q13268	Q13268	DHRS2	9.83E+03
Q13277	Q13277	STX3	7.32E+03
Q13291	Q13291	SLAMF1	3.37E+03
Q13308	Q13308	PTK7	1.37E+04
Q13332	Q13332	PTPRS	8.68E+04
Q13347	Q13347	EIF3I	Filtered
Q13404	Q13404	UBE2V1	7.23E+04
Q13409	Q13409	DYNC1I2	Filtered
Q13421	Q13421	MSLN	9.73E+04
Q13443	Q13443	ADAM9	1.87E+04
Q13444	Q13444	ADAM15	4.26E+04
Q13445	Q13445	TMED1	Filtered
Q13449	Q13449	LSAMP	4.74E+04
Q13451	Q13451	FKBP5	Filtered
Q13477	Q13477	MADCAM1	9.35E+04
Q13508	Q13508	ART3	9.96E+04
Q13510	Q13510	ASAH1	9.93E+05
Q13554;Q13555	Q13554;Q13555	CAMK2B;CAMK2G	9.35E+03
Q13561	Q13561	DCTN2	6.83E+04
Q13576	Q13576	IQGAP2	3.53E+03
Q13591	Q13591	SEMA5A	2.21E+04
Q13621	Q13621	SLC12A1	3.47E+04
Q13630	Q13630	TSTA3	2.92E+04

Q13636;Q9UL26	Q13636;Q9UL26	RAB31;RAB22A	2.94E+03
Q13740	Q13740	ALCAM	7.32E+04
Q13753	Q13753	LAMC2	Filtered
Q13813	Q13813	SPTAN1	1.83E+04
Q13822	Q13822	ENPP2	1.55E+04
Q13873	Q13873	BMPR2	1.66E+04
Q13938	Q13938	CAPS	1.29E+04
Q14008	Q14008	CKAP5	3.62E+03
Q14019	Q14019	COTL1	2.77E+04
Q14103	Q14103	HNRNPD	4.16E+03
Q14108	Q14108	SCARB2	4.27E+04
Q14112	Q14112	NID2	Filtered
Q14116	Q14116	IL18	5.57E+03
Q14117	Q14117	DPYS	1.43E+04
Q14118	Q14118	DAG1	5.07E+04
Q14126	Q14126	DSG2	7.14E+04
Q14152	Q14152	EIF3A	Filtered
Q14156	Q14156	EFR3A	Filtered
Q14162	Q14162	SCARF1	Filtered
Q14165	Q14165	MLEC	2.97E+04
Q14166	Q14166	TTLL12	8.45E+03
Q14185	Q14185	DOCK1	Filtered
Q14201	Q14201	BTG3	1.91E+04
Q14203	Q14203	DCTN1	1.64E+04
Q14204	Q14204	DYNC1H1	8.06E+03
Q14210	Q14210	LY6D	3.34E+05
Q14240	Q14240	EIF4A2	1.94E+04
Q14247	Q14247	CTTN	1.39E+04
Q14254	Q14254	FLOT2	2.04E+03
Q14258	Q14258	TRIM25	Filtered
Q14314	Q14314	FGL2	1.08E+04
Q14315	Q14315	FLNC	1.00E+05
Q14344	Q14344	GNA13	Filtered
Q14376	Q14376	GALE	1.28E+06
Q14393	Q14393	GAS6	2.15E+04
Q14508	Q14508	WFDC2	1.34E+06
Q14515	Q14515	SPARCL1	2.17E+04
Q14520	Q14520	HABP2	5.66E+03
Q14624	Q14624	ITIH4	2.01E+05
Q14651	Q14651	PLS1	3.90E+03
Q14697	Q14697	GANAB	3.92E+03
Q14738	Q14738	PPP2R5D	Filtered
Q14764	Q14764	MVP	4.19E+03
Q14766	Q14766	LTBP1	5.42E+04
Q14767	Q14767	LTBP2	1.19E+05
Q14847	Q14847	LASP1	6.22E+03
Q14894	Q14894	CRYM	1.22E+05

Q14914	Q14914	PTGR1	5.81E+04
Q14956	Q14956	GPNMB	1.16E+05
Q14974	Q14974	KPNB1	8.77E+03
Q14982	Q14982	OPCML	5.05E+04
Q14CN2	Q14CN2	CLCA4	5.68E+03
Q15008	Q15008	PSMD6	1.08E+03
Q15019	Q15019	4.44E+04	1.35E+03
Q15046	Q15046	KARS	Filtered
Q15084	Q15084	PDIA6	Filtered
Q15109	Q15109	AGER	1.54E+04
Q15113	Q15113	PCOLCE	2.80E+05
Q15125	Q15125	EBP	Filtered
Q15126	Q15126	PMVK	Filtered
Q15149	Q15149	PLEC	4.52E+03
Q15181	Q15181	PPA1	Filtered
Q15185	Q15185	PTGES3	Filtered
Q15208	Q15208	STK38	Filtered
Q15223	Q15223	NECTIN1	2.06E+04
Q15257	Q15257	PTPA	1.39E+04
Q15274	Q15274	QPRT	1.07E+05
Q15286	Q15286	RAB35	1.07E+04
Q15365	Q15365	PCBP1	5.65E+04
Q15369	Q15369	ELOC	7.36E+03
Q15370	Q15370	ELOB	4.34E+03
Q15375	Q15375	EPHA7	5.95E+04
Q15435	Q15435	PPP1R7	5.41E+03
Q15477	Q15477	SKIV2L	Filtered
Q15485	Q15485	FCN2	Filtered
Q15517	Q15517	CDSN	6.33E+04
Q15582	Q15582	TGFB1	1.22E+04
Q15599	Q15599	SLC9A3R2	3.35E+03
Q15631	Q15631	TSN	6.99E+03
Q15691	Q15691	MAPRE1	Filtered
Q15746	Q15746	MYLK	1.37E+05
Q15814	Q15814	TBCC	Filtered
Q15828	Q15828	CST6	5.76E+05
Q15833	Q15833	STXBP2	7.95E+03
Q15836	Q15836	VAMP3	Filtered
Q15847	Q15847	ADIRF	2.25E+04
Q15848	Q15848	ADIPOQ	6.03E+04
Q15904	Q15904	ATP6AP1	3.93E+04
Q16186	Q16186	ADRM1	Filtered
Q16222	Q16222	UAP1	1.12E+04
Q16270	Q16270	IGFBP7	6.42E+05
Q16348	Q16348	SLC15A2	Filtered
Q16363	Q16363	LAMA4	2.57E+04
Q16401	Q16401	PSMD5	Filtered

Q16531	Q16531	DDB1	Filtered
Q16537	Q16537	PPP2R5E	Filtered
Q16543	Q16543	CDC37	2.17E+03
Q16555	Q16555	DPYSL2	1.61E+05
Q16563	Q16563	SYPL1	7.84E+03
Q16568	Q16568	CARTPT	Filtered
Q16586	Q16586	SGCA	Filtered
Q16610	Q16610	ECM1	1.61E+04
Q16620	Q16620	NTRK2	7.45E+03
Q16643	Q16643	DBN1	5.11E+03
Q16651	Q16651	PRSS8	3.33E+05
Q16653	Q16653	MOG	9.01E+03
Q16661	Q16661	GUCA2B	7.64E+04
Q16698	Q16698	DECR1	1.42E+04
Q16706	Q16706	MAN2A1	8.41E+03
Q16769	Q16769	QPCT	2.84E+05
Q16774	Q16774	GUK1	Filtered
Q16819	Q16819	MEP1A	2.66E+04
Q16827	Q16827	PTPRO	4.45E+03
Q16831	Q16831	UPP1	Filtered
Q16832	Q16832	DDR2	3.89E+04
Q16836	Q16836	HADH	3.04E+03
Q16849	Q16849	PTPRN	1.23E+05
Q16851	Q16851	UGP2	2.89E+04
Q16864	Q16864	ATP6V1F	1.33E+04
Q1EHB4	Q1EHB4	SLC5A12	4.45E+03
Q24JP5	Q24JP5	TMEM132A	2.36E+03
Q2M2I8	Q2M2I8	AAK1	1.29E+04
Q2M389	Q2M389	WASHC4	1.27E+03
Q2PPJ7	Q2PPJ7	RALGAPA2	8.19E+02
Q2QD12;Q96AT9	Q2QD12;Q96AT9	RPEL1;RPE	Filtered
Q2UY09	Q2UY09	COL28A1	1.01E+04
Q3LXA3	Q3LXA3	TKFC	1.70E+04
Q3MIR4	Q3MIR4	TMEM30B	1.49E+04
Q3SXY8	Q3SXY8	ARL13B	Filtered
Q3SY84	Q3SY84	KRT71	6.33E+04
Q495M3	Q495M3	SLC36A2	1.26E+04
Q496F6	Q496F6	CD300E	1.66E+04
Q4KMQ2	Q4KMQ2	ANO6	Filtered
Q4LDE5	Q4LDE5	SVEP1	Filtered
Q4U2R8	Q4U2R8	SLC22A6	8.28E+03
Q53EL6	Q53EL6	PDCD4	2.48E+03
Q53FA7	Q53FA7	TP53I3	Filtered
Q53GD3	Q53GD3	SLC44A4	3.19E+04
Q53H96	Q53H96	PYCR3	Filtered
Q53RD9	Q53RD9	FBLN7	1.50E+05
Q5D862	Q5D862	FLG2	6.58E+03

Q5FWE3	Q5FWE3	PRRT3	Filtered
Q5GLZ8	Q5GLZ8	HERC4	Filtered
Q5HYI8	Q5HYI8	RABL3	1.80E+05
Q5IJ48	Q5IJ48	CRB2	1.15E+04
Q5JRA6	Q5JRA6	MIA3	2.97E+04
Q5JS37	Q5JS37	NHLRC3	7.04E+04
Q5JXA9	Q5JXA9	SIRPB2	4.76E+03
Q5KU26	Q5KU26	COLEC12	7.54E+04
Q5R3I4	Q5R3I4	TTC38	1.23E+04
Q5SQ64	Q5SQ64	LY6G6F	Filtered
Q5SRE7	Q5SRE7	PHYHD1	1.57E+04
Q5SZK8	Q5SZK8	FREM2	1.07E+04
Q5T1S8	Q5T1S8	NCMAP	1.12E+05
Q5T2W1	Q5T2W1	PDZK1	1.92E+04
Q5T4S7	Q5T4S7	UBR4	Filtered
Q5T5C0	Q5T5C0	STXBP5	Filtered
Q5T6V5	Q5T6V5	C9orf64	7.50E+02
Q5T749	Q5T749	KPRP	3.38E+03
Q5TDH0	Q5TDH0	DDI2	Filtered
Q5TFQ8	Q5TFQ8	SIRPB1	5.63E+04
Q5VST6	Q5VST6	ABHD17B	8.63E+03
Q5VW32	Q5VW32	BROX	4.97E+04
Q5VWZ2	Q5VWZ2	LYPLAL1	Filtered
Q5VY43	Q5VY43	PEAR1	Filtered
Q5ZPR3	Q5ZPR3	CD276	5.11E+04
Q66K66	Q66K66	TMEM198	2.26E+06
Q66K79	Q66K79	CPZ	7.47E+04
Q676U5	Q676U5	ATG16L1	Filtered
Q687X5	Q687X5	STEAP4	1.77E+04
Q68D85	Q68D85	NCR3LG1	1.65E+04
Q68DL7	Q68DL7	C18orf63	2.56E+04
Q695T7	Q695T7	SLC6A19	5.31E+04
Q6DKI7	Q6DKI7	PVRIG	3.51E+03
Q6E0U4	Q6E0U4	DMKN	1.61E+05
Q6EMK4	Q6EMK4	VASN	1.48E+06
Q6FHJ7	Q6FHJ7	SFRP4	1.37E+05
Q6FI81	Q6FI81	CIAPIN1	Filtered
Q6GTX8	Q6GTX8	LAIR1	6.67E+05
Q6IBS0	Q6IBS0	TWF2	1.10E+04
Q6IWH7	Q6IWH7	ANO7	1.33E+04
Q6L8Q7	Q6L8Q7	PDE12	Filtered
Q6P1N0	Q6P1N0	CC2D1A	3.95E+03
Q6P4A8	Q6P4A8	PLBD1	4.61E+04
Q6P531	Q6P531	GGT6	1.40E+04
Q6P9A2	Q6P9A2	GALNT18	5.97E+03
Q6PCB0	Q6PCB0	VWA1	1.72E+03
Q6PGP7	Q6PGP7	TTC37	Filtered

Q6PI73	Q6PI73	LILRA6	1.70E+03
Q6PK18	Q6PK18	OGFOD3	4.20E+04
Q6UVK1	Q6UVK1	CSPG4	1.20E+05
Q6UWH4	Q6UWH4	FAM198B	4.93E+03
Q6UWI4	Q6UWI4	SHISA2	2.80E+04
Q6UWL2	Q6UWL2	SUSD1	3.72E+03
Q6UWP2	Q6UWP2	DHRS11	5.35E+03
Q6UWP8	Q6UWP8	SBSN	9.61E+03
Q6UWR7	Q6UWR7	ENPP6	1.06E+04
Q6UWV6	Q6UWV6	ENPP7	Filtered
Q6UWW0	Q6UWW0	LCN15	1.12E+04
Q6UX06	Q6UX06	OLFM4	8.00E+04
Q6UX15	Q6UX15	LAYN	5.62E+04
Q6UX71	Q6UX71	PLXDC2	4.21E+04
Q6UX73	Q6UX73	C16orf89	9.49E+03
Q6UXB3	Q6UXB3	LYPD2	8.61E+04
Q6UXB8	Q6UXB8	PI16	2.25E+06
Q6UXD5	Q6UXD5	SEZ6L2	4.19E+04
Q6UXG2	Q6UXG2	KIAA1324	Filtered
Q6UXG3	Q6UXG3	CD300LG	2.05E+05
Q6UXI9	Q6UXI9	NPNT	1.19E+04
Q6UXK5	Q6UXK5	LRRN1	Filtered
Q6UXN8	Q6UXN8	CLEC9A	Filtered
Q6UXY8	Q6UXY8	TMC5	5.29E+06
Q6UY11	Q6UY11	DLK2	4.71E+04
Q6UY14	Q6UY14	ADAMTSL4	8.63E+04
Q6V0I7	Q6V0I7	FAT4	5.07E+03
Q6VY07	Q6VY07	PACS1	Filtered
Q6W4X9	Q6W4X9	MUC6	Filtered
Q6WKZ4	Q6WKZ4	RAB11FIP1	Filtered
Q6XQN6	Q6XQN6	NAPRT	1.19E+04
Q6YHK3	Q6YHK3	CD109	1.58E+04
Q6ZMJ2	Q6ZMJ2	SCARA5	5.13E+03
Q6ZMP0	Q6ZMP0	THSD4	4.22E+04
Q6ZNA5	Q6ZNA5	FRRS1	6.66E+03
Q6ZSJ9	Q6ZSJ9	SHISA6	6.78E+04
Q6ZVM7	Q6ZVM7	TOM1L2	2.03E+04
Q6ZVN8	Q6ZVN8	HJV	Filtered
Q6ZWJ8	Q6ZWJ8	KCP	Filtered
Q71RC9	Q71RC9	SMIM5	3.61E+03
Q7KYR7;Q8WVV5	Q7KYR7;Q8WVV5	BTN2A1;BTN2A2	1.69E+05
Q7KZF4	Q7KZF4	SND1	Filtered
Q7L1Q6	Q7L1Q6	BZW1	Filtered
Q7L266	Q7L266	ASRGL1	Filtered
Q7L576	Q7L576	CYFIP1	4.07E+03
Q7L5Y1	Q7L5Y1	ENOSF1	Filtered
Q7L9L4;Q9H8S9	Q7L9L4;Q9H8S9	MOB1B;MOB1A	Filtered

Q7LBR1	Q7LBR1	CHMP1B	1.17E+05
Q7Z2W4	Q7Z2W4	ZC3HAV1	4.51E+03
Q7Z3B1	Q7Z3B1	NEGR1	4.68E+04
Q7Z3J2	Q7Z3J2	C16orf62	Filtered
Q7Z404	Q7Z404	TMC4	9.91E+03
Q7Z406	Q7Z406	MYH14	Filtered
Q7Z4H3	Q7Z4H3	HDDC2	Filtered
Q7Z4P5	Q7Z4P5	GDF7	2.41E+03
Q7Z4W1	Q7Z4W1	DCXR	7.34E+04
Q7Z5L0	Q7Z5L0	VMO1	1.36E+06
Q7Z5L7	Q7Z5L7	PODN	1.26E+05
Q7Z5N4	Q7Z5N4	SDK1	3.95E+03
Q7Z6A9	Q7Z6A9	BTLA	8.61E+03
Q7Z6J2	Q7Z6J2	GRASP	5.38E+03
Q7Z7D3	Q7Z7D3	VTCN1	5.96E+03
Q7Z7G0	Q7Z7G0	ABI3BP	Filtered
Q7Z7M0	Q7Z7M0	MEGF8	3.18E+04
Q86SF2	Q86SF2	GALNT7	1.87E+04
Q86SQ4	Q86SQ4	ADGRG6	6.16E+03
Q86T13	Q86T13	CLEC14A	1.02E+05
Q86TH1	Q86TH1	ADAMTSL2	4.42E+03
Q86TP1	Q86TP1	PRUNE1	Filtered
Q86TY3	Q86TY3	ARMH4	1.01E+03
Q86UD1	Q86UD1	OAF	8.27E+03
Q86UN3	Q86UN3	RTN4RL2	7.21E+04
Q86UX2	Q86UX2	ITIH5	Filtered
Q86V85	Q86V85	GPR180	8.47E+03
Q86VB7	Q86VB7	CD163	5.32E+04
Q86VE9	Q86VE9	SERINC5	3.93E+04
Q86VN1	Q86VN1	VPS36	Filtered
Q86VP6	Q86VP6	CAND1	8.14E+03
Q86X29	Q86X29	LSR	1.04E+04
Q86X76	Q86X76	NIT1	9.09E+03
Q86XT2	Q86XT2	VPS37D	5.71E+03
Q86Y38	Q86Y38	XYLT1	1.74E+05
Q86Y82	Q86Y82	STX12	Filtered
Q86YD3	Q86YD3	TMEM25	4.28E+03
Q86YS6	Q86YS6	RAB43	Filtered
Q86YZ3	Q86YZ3	HRNR	1.61E+04
Q8IUC4	Q8IUC4	RHPN2	Filtered
Q8IUK5	Q8IUK5	PLXDC1	1.29E+04
Q8IUL8	Q8IUL8	CILP2	4.98E+04
Q8IUX7	Q8IUX7	AEBP1	6.34E+03
Q8IUZ5	Q8IUZ5	PHYKPL	Filtered
Q8IV08	Q8IV08	PLD3	1.12E+05
Q8IV36	Q8IV36	HID1	5.60E+03
Q8IW45	Q8IW45	NAXD	Filtered

Q8IW52	Q8IW52	SLITRK4	1.45E+04
Q8IWA5	Q8IWA5	SLC44A2	4.88E+04
Q8IWL1;Q8IWL2	Q8IWL1;Q8IWL2	SFTPA2;SFTPA1	Filtered
Q8IWU5	Q8IWU5	SULF2	3.40E+06
Q8IWY4	Q8IWY4	SCUBE1	6.60E+04
Q8IX04	Q8IX04	UEVLD	1.37E+03
Q8IY17	Q8IY17	PNPLA6	Filtered
Q8IY95	Q8IY95	TMEM192	8.11E+03
Q8IYJ3	Q8IYJ3	SYTL1	3.38E+04
Q8IYS1	Q8IYS1	PM20D2	9.09E+03
Q8IYS5	Q8IYS5	OSCAR	1.35E+05
Q8IZ07	Q8IZ07	ANKRD13A	Filtered
Q8IZA0	Q8IZA0	KIAA0319L	2.51E+05
Q8IZF2	Q8IZF2	ADGRF5	1.08E+04
Q8IZJ3	Q8IZJ3	CPAMD8	5.04E+03
Q8IZP0	Q8IZP0	ABI1	4.58E+03
Q8IZP9	Q8IZP9	ADGRG2	2.42E+04
Q8N0V5	Q8N0V5	GCNT2	Filtered
Q8N114	Q8N114	SHISA5	6.84E+06
Q8N126	Q8N126	CADM3	3.65E+04
Q8N128	Q8N128	FAM177A1	9.69E+03
Q8N1G4	Q8N1G4	LRRC47	6.97E+03
Q8N1N4	Q8N1N4	KRT78	2.61E+03
Q8N271	Q8N271	PROM2	2.25E+03
Q8N2G4	Q8N2G4	LYPD1	9.98E+03
Q8N2S1	Q8N2S1	LTBP4	3.31E+05
Q8N307	Q8N307	MUC20	2.85E+04
Q8N335	Q8N335	GPD1L	2.42E+04
Q8N392	Q8N392	ARHGAP18	Filtered
Q8N3J6	Q8N3J6	CADM2	2.94E+04
Q8N3R9	Q8N3R9	MPP5	1.68E+04
Q8N436	Q8N436	CPXM2	6.87E+04
Q8N474	Q8N474	SFRP1	9.11E+03
Q8N5I2	Q8N5I2	ARRDC1	2.91E+04
Q8N5J2	Q8N5J2	MINDY1	Filtered
Q8N6G6	Q8N6G6	ADAMTSL1	Filtered
Q8N6Q3	Q8N6Q3	CD177	9.40E+04
Q8N8N7	Q8N8N7	PTGR2	Filtered
Q8N8Y2	Q8N8Y2	ATP6V0D2	Filtered
Q8N9N7	Q8N9N7	LRRC57	Filtered
Q8N9U0	Q8N9U0	TC2N	2.25E+04
Q8NBF2	Q8NBF2	NHLRC2	1.26E+04
Q8NBJ4	Q8NBJ4	GOLM1	1.39E+05
Q8NBR6	Q8NBR6	MINDY2	8.11E+02
Q8NBS9	Q8NBS9	TXNDC5	2.81E+04
Q8NC54	Q8NC54	KCT2	1.74E+04
Q8NCC3	Q8NCC3	PLA2G15	1.32E+05

Q8ND94	Q8ND94	LRRN4CL	Filtered
Q8NDA2	Q8NDA2	HMCN2	2.00E+04
Q8NEU8	Q8NEU8	APPL2	6.99E+03
Q8NFH8;Q96D71	Q8NFH8;Q96D71	REPS2;REPS1	Filtered
Q8NFJ5	Q8NFJ5	GPRC5A	1.82E+04
Q8NFT2	Q8NFT2	STEAP2	Filtered
Q8NFT8	Q8NFT8	DNER	6.34E+04
Q8NFU3	Q8NFU3	TSTD1	5.03E+04
Q8NFZ8	Q8NFZ8	CADM4	3.10E+05
Q8NHG7	Q8NHG7	SVIP	Filtered
Q8NHJ6	Q8NHJ6	LILRB4	3.08E+04
Q8NHL6	Q8NHL6	LILRB1	1.72E+03
Q8NHP8	Q8NHP8	PLBD2	4.58E+04
Q8NI32	Q8NI32	LYPD6B	Filtered
Q8NI35	Q8NI35	PATJ	Filtered
Q8TAG9	Q8TAG9	EXOC6	Filtered
Q8TAT6	Q8TAT6	NPLOC4	Filtered
Q8TB96	Q8TB96	ITFG1	2.46E+04
Q8TBP5	Q8TBP5	FAM174A	4.39E+05
Q8TC07	Q8TC07	TBC1D15	Filtered
Q8TC12	Q8TC12	RDH11	Filtered
Q8TCC7	Q8TCC7	SLC22A8	Filtered
Q8TCD5	Q8TCD5	NT5C	Filtered
Q8TCZ2	Q8TCZ2	CD99L2	4.84E+03
Q8TD19	Q8TD19	NEK9	Filtered
Q8TD43	Q8TD43	TRPM4	Filtered
Q8TDL5	Q8TDL5	BPIFB1	4.92E+03
Q8TDQ0	Q8TDQ0	HAVCR2	2.05E+05
Q8TDQ1	Q8TDQ1	CD300LF	4.39E+04
Q8TE68	Q8TE68	EPS8L1	1.73E+04
Q8TE77	Q8TE77	SSH3	2.96E+03
Q8TER0	Q8TER0	SNED1	9.72E+03
Q8TF09;Q9NP97	Q8TF09;Q9NP97	DYNLRB2;DYNLRB1	4.73E+03
Q8TF66	Q8TF66	LRRC15	3.16E+04
Q8TF74	Q8TF74	WIPF2	Filtered
Q8WUD1	Q8WUD1	RAB2B	Filtered
Q8WUM4	Q8WUM4	PDCD6IP	1.02E+05
Q8WUT4	Q8WUT4	LRRN4	1.35E+04
Q8WUW1	Q8WUW1	BRK1	Filtered
Q8WV92	Q8WV92	MITD1	1.98E+04
Q8WVN6	Q8WVN6	SECTM1	2.29E+06
Q8WVQ1	Q8WVQ1	CANT1	2.33E+04
Q8WW52	Q8WW52	FAM151A	9.90E+04
Q8WWA0	Q8WWA0	ITLN1	1.12E+04
Q8WWQ8	Q8WWQ8	STAB2	3.57E+03
Q8WWT9	Q8WWT9	SLC13A3	Filtered
Q8WWV6	Q8WWV6	FCAMR	1.81E+04

Q8WWZ8	Q8WWZ8	OIT3	1.38E+04
Q8WY91	Q8WY91	THAP4	Filtered
Q8WZ42	Q8WZ42	TTN	3.18E+04
Q8WZ75	Q8WZ75	ROBO4	2.39E+05
Q92484	Q92484	SMPDL3A	4.82E+04
Q92485	Q92485	SMPDL3B	1.05E+05
Q92496	Q92496	CFHR4	9.28E+04
Q92520	Q92520	FAM3C	3.74E+04
Q92538	Q92538	GBF1	Filtered
Q92542	Q92542	NCSTN	1.58E+04
Q92563	Q92563	SPOCK2	8.70E+04
Q92567	Q92567	FAM168A	1.52E+04
Q92597	Q92597	NDRG1	1.84E+04
Q92598	Q92598	HSPH1	4.86E+03
Q92616	Q92616	GCN1	Filtered
Q92626	Q92626	PXDN	2.06E+04
Q92673	Q92673	SORL1	1.14E+04
Q92692	Q92692	NECTIN2	3.20E+05
Q92696	Q92696	RABGGTA	3.97E+03
Q92743	Q92743	HTRA1	4.35E+04
Q92747	Q92747	ARPC1A	1.03E+04
Q92752	Q92752	TNR	3.01E+03
Q92783	Q92783	STAM	Filtered
Q92820	Q92820	GGH	3.35E+05
Q92823	Q92823	NRCAM	Filtered
Q92832	Q92832	NELL1	Filtered
Q92845	Q92845	KIFAP3	Filtered
Q92859	Q92859	NEO1	2.87E+04
Q92876	Q92876	KLK6	8.40E+03
Q92896	Q92896	GLG1	3.44E+04
Q92900	Q92900	UPF1	Filtered
Q92930	Q92930	RAB8B	2.17E+04
Q92945	Q92945	KHSRP	Filtered
Q92954	Q92954	PRG4	1.87E+05
Q92956	Q92956	TNFRSF14	1.17E+05
Q93009	Q93009	USP7	1.01E+05
Q93050	Q93050	ATP6V0A1	5.17E+03
Q93052	Q93052	LPP	1.94E+04
Q93070	Q93070	ART4	4.85E+03
Q93088	Q93088	BHMT	7.84E+04
Q93091	Q93091	RNASE6	3.88E+04
Q93099	Q93099	HGD	Filtered
Q969E1	Q969E1	LEAP2	1.94E+04
Q969H8	Q969H8	MYDGF	3.43E+05
Q969L2	Q969L2	MAL2	8.47E+04
Q969P0	Q969P0	IGSF8	3.00E+05
Q969Q5	Q969Q5	RAB24	Filtered

Q969T9	Q969T9	WBP2	2.94E+04
Q969X1	Q969X1	TMBIM1	3.20E+05
Q969X5	Q969X5	ERGIC1	9.95E+03
Q969Z4	Q969Z4	RELT	2.30E+04
Q96A22	Q96A22	C11orf52	Filtered
Q96A23	Q96A23	CPNE4	Filtered
Q96AM1	Q96AM1	MRGPRF	1.96E+04
Q96AP7	Q96AP7	ESAM	3.53E+04
Q96BM9	Q96BM9	ARL8A	1.25E+04
Q96BW5	Q96BW5	PTER	4.49E+03
Q96C19	Q96C19	EFHD2	8.29E+03
Q96C23	Q96C23	GALM	3.55E+04
Q96C24	Q96C24	SYTL4	2.48E+04
Q96CG8	Q96CG8	CTHRC1	1.03E+04
Q96CN7	Q96CN7	ISOC1	2.21E+03
Q96CS7	Q96CS7	PLEKHB2	1.70E+04
Q96CX2	Q96CX2	KCTD12	5.37E+03
Q96D15	Q96D15	RCN3	1.88E+04
Q96DA0	Q96DA0	ZG16B	5.02E+05
Q96DG6	Q96DG6	CMBL	1.46E+04
Q96DR8	Q96DR8	MUCL1	9.78E+05
Q96EY5	Q96EY5	MVB12A	1.25E+04
Q96F46	Q96F46	IL17RA	Filtered
Q96FE7	Q96FE7	PIK3IP1	8.30E+06
Q96FJ2	Q96FJ2	DYNLL2	1.09E+04
Q96FL8	Q96FL8	SLC47A1	Filtered
Q96FN4	Q96FN4	CPNE2	Filtered
Q96FN5	Q96FN5	KIF12	4.26E+03
Q96FV2	Q96FV2	SCRN2	2.62E+04
Q96FW1	Q96FW1	OTUB1	1.77E+03
Q96FZ7	Q96FZ7	CHMP6	4.20E+03
Q96G03	Q96G03	PGM2	1.29E+04
Q96GW7	Q96GW7	BCAN	1.41E+05
Q96H20	Q96H20	SNF8	2.19E+05
Q96HA4	Q96HA4	C1orf159	2.05E+04
Q96HC4	Q96HC4	PDLIM5	2.59E+04
Q96HD1	Q96HD1	CRELD1	1.03E+04
Q96HU1	Q96HU1	SGSM3	3.58E+03
Q96I82	Q96I82	KAZALD1	4.41E+04
Q96I99	Q96I99	SUCLG2	5.49E+02
Q96IG2	Q96IG2	FBXL20	Filtered
Q96IJ6	Q96IJ6	GMPPA	1.54E+04
Q96IQ7	Q96IQ7	VSIG2	1.08E+05
Q96IU4	Q96IU4	ABHD14B	3.09E+05
Q96IY4	Q96IY4	CPB2	9.76E+03
Q96J02	Q96J02	ITCH	Filtered
Q96J84	Q96J84	KIRREL1	3.13E+04

Q96JF0	Q96JF0	ST6GAL2	3.19E+04
Q96JQ0	Q96JQ0	DCHS1	2.53E+04
Q96KN2	Q96KN2	CNDP1	3.45E+04
Q96KP4	Q96KP4	CNDP2	2.35E+05
Q96MG2	Q96MG2	JSRP1	2.82E+04
Q96MM7	Q96MM7	HS6ST2	Filtered
Q96NY8	Q96NY8	NECTIN4	8.58E+04
Q96NZ9	Q96NZ9	PRAP1	Filtered
Q96P63	Q96P63	SERPINB12	1.42E+04
Q96PD2	Q96PD2	DCBLD2	Filtered
Q96PD5	Q96PD5	PGLYRP2	3.14E+05
Q96PU5	Q96PU5	NEDD4L	3.43E+03
Q96PX8	Q96PX8	SLITRK1	7.13E+04
Q96QK1	Q96QK1	VPS35	2.19E+04
Q96RW7	Q96RW7	HMCN1	3.84E+05
Q96S19	Q96S19	METTL26	Filtered
Q96S82	Q96S82	UBL7	7.26E+03
Q96S96	Q96S96	PEBP4	6.14E+05
Q96T76	Q96T76	MMS19	Filtered
Q96TA1	Q96TA1	FAM129B	1.43E+04
Q99075	Q99075	HBEGF	4.00E+03
Q99102	Q99102	MUC4	Filtered
Q99426	Q99426	TBCB	8.80E+03
Q99447	Q99447	PCYT2	7.11E+03
Q99460	Q99460	PSMD1	Filtered
Q99497	Q99497	PARK7	1.49E+05
Q99519	Q99519	NEU1	1.07E+05
Q99523	Q99523	SORT1	3.31E+04
Q99536	Q99536	VAT1	8.00E+04
Q99538	Q99538	LGMN	1.25E+04
Q99571	Q99571	P2RX4	4.32E+04
Q99574	Q99574	SERPINI1	2.65E+04
Q99598	Q99598	TSNAX	Filtered
Q99611	Q99611	SEPHS2	2.05E+04
Q99650	Q99650	OSMR	1.18E+04
Q99715	Q99715	COL12A1	2.09E+05
Q99728	Q99728	BARD1	2.12E+05
Q99732	Q99732	LITAF	1.08E+05
Q99733	Q99733	NAP1L4	3.59E+04
Q99747	Q99747	NAPG	Filtered
Q99798	Q99798	ACO2	3.99E+03
Q99816	Q99816	TSG101	2.87E+04
Q99828	Q99828	CIB1	2.51E+04
Q99829	Q99829	CPNE1	Filtered
Q99832	Q99832	CCT7	1.55E+04
Q99835	Q99835	SMO	1.11E+04
Q99941	Q99941	ATF6B	2.89E+03

Q99952	Q99952	PTPN18	2.62E+03
Q99961;Q99962	Q99961;Q99962	SH3GL1;SH3GL2	1.17E+04
Q99969	Q99969	RARRES2	3.51E+04
Q99972	Q99972	MYOC	5.37E+04
Q99983	Q99983	OMD	3.15E+04
Q99985	Q99985	SEMA3C	4.36E+03
Q99988	Q99988	GDF15	6.22E+04
Q9BQ16	Q9BQ16	SPOCK3	Filtered
Q9BQ51	Q9BQ51	PDCD1LG2	9.11E+04
Q9BQA1	Q9BQA1	WDR77	Filtered
Q9BQT9	Q9BQT9	CLSTN3	7.71E+02
Q9BR76	Q9BR76	CORO1B	2.10E+04
Q9BRA2	Q9BRA2	TXNDC17	2.97E+04
Q9BRF8	Q9BRF8	CPPED1	9.38E+03
Q9BRK3	Q9BRK3	MXRA8	4.87E+05
Q9BRK5	Q9BRK5	SDF4	1.55E+04
Q9BRT3	Q9BRT3	MIEN1	4.28E+05
Q9BS26	Q9BS26	ERP44	3.74E+04
Q9BS40	Q9BS40	LXN	1.11E+04
Q9BSD7	Q9BSD7	NTPCR	Filtered
Q9BSW2	Q9BSW2	CRACR2A	Filtered
Q9BT78	Q9BT78	COPS4	5.19E+03
Q9BTY2	Q9BTY2	FUCA2	6.27E+04
Q9BUD6	Q9BUD6	SPON2	2.26E+04
Q9BUF7	Q9BUF7	CRB3	Filtered
Q9BUH6	Q9BUH6	PAXX	5.11E+03
Q9BUL8	Q9BUL8	PDCD10	Filtered
Q9BUN1	Q9BUN1	MENT	2.99E+04
Q9BUT1	Q9BUT1	BDH2	4.16E+04
Q9BV36	Q9BV36	MLPH	1.96E+04
Q9BV40	Q9BV40	VAMP8	6.10E+03
Q9BVC6	Q9BVC6	TMEM109	5.66E+03
Q9BVG4	Q9BVG4	PBDC1	Filtered
Q9BVM4	Q9BVM4	GGACT	2.54E+04
Q9BW04	Q9BW04	SARG	1.95E+04
Q9BW83	Q9BW83	IFT27	Filtered
Q9BWD1	Q9BWD1	ACAT2	1.05E+04
Q9BX67	Q9BX67	JAM3	1.38E+05
Q9BXI6	Q9BXI6	TBC1D10A	Filtered
Q9BXJ0	Q9BXJ0	C1QTNF5	1.34E+04
Q9BXJ7	Q9BXJ7	AMN	1.34E+03
Q9BXN2	Q9BXN2	CLEC7A	1.67E+04
Q9BXP8	Q9BXP8	PAPPA2	4.78E+04
Q9BXR6	Q9BXR6	CFHR5	Filtered
Q9BY43	Q9BY43	CHMP4A	8.34E+03
Q9BY67	Q9BY67	CADM1	6.42E+04
Q9BYE2	Q9BYE2	TMPRSS13	Filtered

Q9BYE9	Q9BYE9	CDHR2	7.03E+04
Q9BYF1	Q9BYF1	ACE2	9.13E+03
Q9BYJ0	Q9BYJ0	FGFBP2	1.80E+04
Q9BYT8	Q9BYT8	NLN	Filtered
Q9BZG1	Q9BZG1	RAB34	Filtered
Q9BZM4	Q9BZM4	ULBP3	Filtered
Q9BZQ8	Q9BZQ8	FAM129A	6.96E+04
Q9BZR6	Q9BZR6	RTN4R	8.68E+03
Q9BZZ2	Q9BZZ2	SIGLEC1	1.99E+04
Q9C0H2	Q9C0H2	TTYH3	Filtered
Q9GZM5	Q9GZM5	YIPF3	1.66E+07
Q9GZM7	Q9GZM7	TINAGL1	6.38E+04
Q9GZP4	Q9GZP4	PITHD1	2.39E+04
Q9GZT8	Q9GZT8	NIF3L1	Filtered
Q9GZU7	Q9GZU7	CTDSP1	Filtered
Q9GZX9	Q9GZX9	TWSG1	2.92E+05
Q9H0B6	Q9H0B6	KLC2	8.17E+03
Q9H0B8	Q9H0B8	CRISPLD2	1.64E+05
Q9H0E2	Q9H0E2	TOLLIP	1.49E+04
Q9H0U4	Q9H0U4	RAB1B	2.43E+04
Q9H0W9	Q9H0W9	C11orf54	1.39E+04
Q9H159	Q9H159	CDH19	2.69E+04
Q9H190	Q9H190	SDCBP2	Filtered
Q9H1B5	Q9H1B5	XYLT2	Filtered
Q9H1C7	Q9H1C7	CYSTM1	1.95E+05
Q9H1U4	Q9H1U4	MEGF9	2.52E+04
Q9H1Y0	Q9H1Y0	ATG5	Filtered
Q9H223	Q9H223	EHD4	2.04E+04
Q9H299	Q9H299	SH3BGRL3	4.66E+06
Q9H2A7	Q9H2A7	CXCL16	3.91E+04
Q9H2G2	Q9H2G2	SLK	1.14E+04
Q9H2K8	Q9H2K8	TAOK3	Filtered
Q9H2M3	Q9H2M3	BHMT2	9.08E+04
Q9H336	Q9H336	CRISPLD1	3.07E+04
Q9H3G5	Q9H3G5	CPVL	4.05E+05
Q9H3K2	Q9H3K2	GHITM	4.61E+04
Q9H3K6	Q9H3K6	BOLA2	1.15E+04
Q9H3S7	Q9H3S7	PTPN23	Filtered
Q9H3U1	Q9H3U1	UNC45A	Filtered
Q9H3Z4	Q9H3Z4	DNAJC5	6.95E+03
Q9H444	Q9H444	CHMP4B	2.73E+04
Q9H461	Q9H461	FZD8	3.96E+04
Q9H477	Q9H477	RBKS	Filtered
Q9H4A4	Q9H4A4	RNPEP	2.60E+04
Q9H4A6	Q9H4A6	GOLPH3	1.97E+03
Q9H4G4	Q9H4G4	GLIPR2	2.05E+05
Q9H4M9	Q9H4M9	EHD1	1.02E+04

Q9H665	Q9H665	IGFLR1	6.78E+04
Q9H6B4	Q9H6B4	CLMP	3.26E+05
Q9H6S3	Q9H6S3	EPS8L2	3.19E+04
Q9H6X2	Q9H6X2	ANTXR1	3.79E+05
Q9H6Y7	Q9H6Y7	RNF167	4.47E+04
Q9H741	Q9H741	C12orf49	9.42E+03
Q9H756	Q9H756	LRRC19	Filtered
Q9H7P6	Q9H7P6	MVB12B	6.50E+03
Q9H8J5	Q9H8J5	MANSC1	3.37E+04
Q9H8L6	Q9H8L6	MMRN2	5.85E+05
Q9H9A6	Q9H9A6	LRRC40	Filtered
Q9H9H4	Q9H9H4	VPS37B	Filtered
Q9H9P2	Q9H9P2	CHODL	8.49E+03
Q9H9P5	Q9H9P5	UNKL	1.49E+05
Q9H9S4	Q9H9S4	CAB39L	Filtered
Q9HAR2	Q9HAR2	ADGRL3	1.81E+04
Q9HAT2	Q9HAT2	SIAE	1.22E+05
Q9HAV5	Q9HAV5	EDA2R	3.16E+04
Q9HB07	Q9HB07	C12orf10	Filtered
Q9HB40	Q9HB40	SCPEP1	5.44E+04
Q9HB71	Q9HB71	CACYBP	5.33E+03
Q9HBB8	Q9HBB8	CDHR5	4.55E+04
Q9HBH0	Q9HBH0	RHOF	Filtered
Q9HBH5	Q9HBH5	RDH14	Filtered
Q9HBJ8	Q9HBJ8	CLTRN	Filtered
Q9HBL0	Q9HBL0	TNS1	9.46E+03
Q9HBR0	Q9HBR0	SLC38A10	2.90E+04
Q9HBT6	Q9HBT6	CDH20	Filtered
Q9HBW9	Q9HBW9	ADGRL4	8.26E+04
Q9HC35	Q9HC35	EML4	2.38E+03
Q9HC38	Q9HC38	GLOD4	3.38E+04
Q9HC56	Q9HC56	PCDH9	5.39E+03
Q9HC84	Q9HC84	MUC5B	9.61E+03
Q9HCE6	Q9HCE6	ARHGEF10L	3.73E+03
Q9HCL0	Q9HCL0	PCDH18	3.56E+03
Q9HCN3	Q9HCN3	TMEM8A	3.64E+03
Q9HCN6	Q9HCN6	GP6	8.18E+04
Q9HCU0	Q9HCU0	CD248	7.03E+05
Q9HCY8	Q9HCY8	S100A14	Filtered
Q9HD42	Q9HD42	CHMP1A	5.07E+04
Q9HD89	Q9HD89	RETN	1.52E+05
Q9HDC9	Q9HDC9	APMAP	1.50E+04
Q9NNX6	Q9NNX6	CD209	6.43E+04
Q9NP58	Q9NP58	ABCB6	Filtered
Q9NP72	Q9NP72	RAB18	2.14E+04
Q9NP79	Q9NP79	VTA1	3.21E+04
Q9NP84	Q9NP84	TNFRSF12A	3.52E+05

Q9NP85	Q9NP85	NPHS2	5.28E+03
Q9NP94	Q9NP94	SLC39A2	Filtered
Q9NPF0	Q9NPF0	CD320	6.43E+04
Q9NPG4	Q9NPG4	PCDH12	4.85E+04
Q9NPH3	Q9NPH3	IL1RAP	6.53E+04
Q9NPR2	Q9NPR2	SEMA4B	2.39E+04
Q9NPY3	Q9NPY3	CD93	6.70E+04
Q9NQ36	Q9NQ36	SCUBE2	2.76E+04
Q9NQ38	Q9NQ38	SPINK5	9.34E+04
Q9NQ48	Q9NQ48	LZTFL1	Filtered
Q9NQ76	Q9NQ76	MEPE	6.22E+04
Q9NQ84	Q9NQ84	GPRC5C	9.83E+04
Q9NQE9	Q9NQE9	HINT3	2.45E+04
Q9NQP4	Q9NQP4	PFDN4	Filtered
Q9NQR4	Q9NQR4	NIT2	1.28E+04
Q9NQS3	Q9NQS3	NECTIN3	Filtered
Q9NQS7	Q9NQS7	INCENP	Filtered
Q9NQT8	Q9NQT8	KIF13B	4.23E+03
Q9NQW7	Q9NQW7	XPNPEP1	1.60E+04
Q9NQX3	Q9NQX3	GPHN	Filtered
Q9NQX4	Q9NQX4	MYO5C	8.09E+03
Q9NQX5	Q9NQX5	NPDC1	1.60E+04
Q9NR31;Q9Y6B6	Q9NR31;Q9Y6B6	SAR1A;SAR1B	Filtered
Q9NR34	Q9NR34	MAN1C1	Filtered
Q9NR45	Q9NR45	NANS	1.35E+04
Q9NR46	Q9NR46	SH3GLB2	Filtered
Q9NR99	Q9NR99	MXRA5	2.50E+03
Q9NRB3	Q9NRB3	CHST12	1.29E+03
Q9NRF8	Q9NRF8	CTPS2	Filtered
Q9NRV9	Q9NRV9	HEBP1	7.23E+03
Q9NRX4	Q9NRX4	PHPT1	3.66E+04
Q9NS15	Q9NS15	LTBP3	3.06E+04
Q9NS68	Q9NS68	TNFRSF19	1.61E+04
Q9NS93	Q9NS93	TM7SF3	Filtered
Q9NSD9	Q9NSD9	FARSB	Filtered
Q9NSK0	Q9NSK0	KLC4	1.04E+05
Q9NTK5	Q9NTK5	OLA1	1.06E+04
Q9NTX5	Q9NTX5	ECHDC1	1.73E+04
Q9NU53	Q9NU53	GINM1	1.63E+04
Q9NUM4	Q9NUM4	TMEM106B	8.99E+04
Q9NUP9	Q9NUP9	LIN7C	5.34E+03
Q9NUQ8	Q9NUQ8	ABCF3	Filtered
Q9NUU7;Q9UMR2	Q9NUU7;Q9UMR2	DDX19A;DDX19B	3.69E+03
Q9NV35	Q9NV35	NUDT15	Filtered
Q9NV96	Q9NV96	TMEM30A	Filtered
Q9NV59	Q9NV59	PNPO	5.79E+03
Q9NWW4	Q9NWW4	C1orf123	8.95E+04

Q9NXL6	Q9NXL6	SIDT1	Filtered
Q9NXU5	Q9NXU5	ARL15	2.88E+03
Q9NY15	Q9NY15	STAB1	8.91E+03
Q9NY25	Q9NY25	CLEC5A	1.72E+04
Q9NY33	Q9NY33	DPP3	1.84E+04
Q9NY97	Q9NY97	B3GNT2	1.27E+04
Q9NZ08	Q9NZ08	ERAP1	9.52E+03
Q9NZ53	Q9NZ53	PODXL2	8.47E+03
Q9NZB2	Q9NZB2	FAM120A	Filtered
Q9NZH0	Q9NZH0	GPRC5B	5.54E+04
Q9NZL9	Q9NZL9	MAT2B	Filtered
Q9NZM1	Q9NZM1	MYOF	6.22E+03
Q9NZM3	Q9NZM3	ITSN2	1.76E+03
Q9NZN1	Q9NZN1	IL1RAPL1	Filtered
Q9NZP8	Q9NZP8	C1RL	4.58E+05
Q9NZU0	Q9NZU0	FLRT3	Filtered
Q9NZV1	Q9NZV1	CRIM1	1.45E+04
Q9NZZ3	Q9NZZ3	CHMP5	4.13E+04
Q9P0V3	Q9P0V3	SH3BP4	Filtered
Q9P0V9	Q9P0V9	4.44E+04	Filtered
Q9P121	Q9P121	NTM	3.81E+04
Q9P206	Q9P206	KIAA1522	Filtered
Q9P265	Q9P265	DIP2B	Filtered
Q9P2B2	Q9P2B2	PTGFRN	Filtered
Q9P2J5	Q9P2J5	LARS	Filtered
Q9P2R3	Q9P2R3	ANKFY1	Filtered
Q9P2T1	Q9P2T1	GMPR2	Filtered
Q9UBB4	Q9UBB4	ATXN10	Filtered
Q9UBC9	Q9UBC9	SPRR3	1.27E+05
Q9UBG3	Q9UBG3	CRNN	3.45E+03
Q9UBI6	Q9UBI6	GNG12	5.10E+04
Q9UBN7	Q9UBN7	HDAC6	Filtered
Q9UBP0	Q9UBP0	SPAST	Filtered
Q9UBP4	Q9UBP4	DKK3	2.97E+04
Q9UBQ0	Q9UBQ0	VPS29	3.48E+04
Q9UBQ6	Q9UBQ6	EXTL2	Filtered
Q9UBQ7	Q9UBQ7	GRHPR	2.15E+03
Q9UBR2	Q9UBR2	CTSZ	5.37E+05
Q9UBV2	Q9UBV2	SEL1L	Filtered
Q9UBV8	Q9UBV8	PEF1	2.43E+03
Q9UBW8	Q9UBW8	COPS7A	Filtered
Q9UBX1	Q9UBX1	CTSF	8.81E+03
Q9UBX5	Q9UBX5	FBLN5	1.01E+06
Q9UBX7	Q9UBX7	KLK11	5.61E+04
Q9UEF7	Q9UEF7	KL	9.05E+04
Q9UEW8	Q9UEW8	STK39	Filtered
Q9UGM3	Q9UGM3	DMBT1	7.11E+03

Q9UGM5	Q9UGM5	FETUB	6.72E+03
Q9UGN4	Q9UGN4	CD300A	7.62E+04
Q9UGT4	Q9UGT4	SUSD2	5.08E+03
Q9UGV2	Q9UGV2	NDRG3	1.89E+04
Q9UHC6	Q9UHC6	CNTNAP2	4.32E+04
Q9UHD8	Q9UHD8	4.44E+04	Filtered
Q9UHG2	Q9UHG2	PCSK1N	3.85E+04
Q9UHG3	Q9UHG3	PCYOX1	Filtered
Q9UHI5	Q9UHI5	SLC7A8	1.01E+04
Q9UHI7	Q9UHI7	SLC23A1	1.66E+04
Q9UHI8	Q9UHI8	ADAMTS1	2.50E+04
Q9UHL4	Q9UHL4	DPP7	7.15E+05
Q9UHR4	Q9UHR4	BAIAP2L1	3.27E+03
Q9UHV9	Q9UHV9	PFDN2	Filtered
Q9UHY7	Q9UHY7	ENOPH1	Filtered
Q9UI12	Q9UI12	ATP6V1H	2.05E+04
Q9UI30	Q9UI30	TRMT112	8.64E+03
Q9UIB8	Q9UIB8	CD84	4.15E+04
Q9UIC8	Q9UIC8	LCMT1	Filtered
Q9UID3	Q9UID3	VPS51	Filtered
Q9UIK5	Q9UIK5	TMEFF2	5.90E+04
Q9UIQ6	Q9UIQ6	LNPEP	1.21E+04
Q9UJ70	Q9UJ70	NAGK	1.14E+04
Q9UJ72	Q9UJ72	ANXA10	2.39E+03
Q9UJA9	Q9UJA9	ENPP5	Filtered
Q9UJC3	Q9UJC3	HOOK1	3.20E+03
Q9UJC5	Q9UJC5	SH3BGRL2	Filtered
Q9UJJ9	Q9UJJ9	GNPTG	1.63E+04
Q9UJU6	Q9UJU6	DBNL	4.74E+03
Q9UK22	Q9UK22	FBXO2	Filtered
Q9UK23	Q9UK23	NAGPA	Filtered
Q9UK41	Q9UK41	VPS28	3.07E+04
Q9UK55	Q9UK55	SERPINA10	Filtered
Q9UKK9	Q9UKK9	NUDT5	3.83E+03
Q9UKM7	Q9UKM7	MAN1B1	Filtered
Q9UKS6	Q9UKS6	PACSIN3	4.06E+03
Q9UKU6	Q9UKU6	TRHDE	2.26E+03
Q9UKU7	Q9UKU7	ACAD8	Filtered
Q9UKU9	Q9UKU9	ANGPTL2	1.34E+05
Q9UKY0	Q9UKY0	PRND	1.84E+04
Q9UKY7	Q9UKY7	CDV3	7.35E+02
Q9UKZ9	Q9UKZ9	PCOLCE2	4.27E+04
Q9UL25	Q9UL25	RAB21	2.75E+04
Q9ULA0	Q9ULA0	DNPEP	Filtered
Q9ULC3	Q9ULC3	RAB23	Filtered
Q9ULC4	Q9ULC4	MCTS1	2.55E+04
Q9ULI3	Q9ULI3	HEG1	7.40E+04

Q9ULP9	Q9ULP9	TBC1D24	5.33E+03
Q9ULR3	Q9ULR3	PPM1H	Filtered
Q9ULV1	Q9ULV1	FZD4	5.87E+04
Q9ULV4	Q9ULV4	CORO1C	Filtered
Q9UM22	Q9UM22	EPDR1	1.51E+05
Q9UM47	Q9UM47	NOTCH3	2.52E+04
Q9UM54	Q9UM54	MYO6	5.38E+03
Q9UMD9	Q9UMD9	COL17A1	3.07E+04
Q9UMX5	Q9UMX5	NENF	1.64E+05
Q9UMY4	Q9UMY4	SNX12	4.38E+03
Q9UN37	Q9UN37	VPS4A	5.03E+04
Q9UN70	Q9UN70	PCDHGC3	1.25E+05
Q9UNE7	Q9UNE7	STUB1	Filtered
Q9UNF0	Q9UNF0	PACSIN2	1.74E+04
Q9UNH7	Q9UNH7	SNX6	Filtered
Q9UNK0	Q9UNK0	STX8	Filtered
Q9UNM6	Q9UNM6	PSMD13	Filtered
Q9UNN8	Q9UNN8	PROCR	1.61E+05
Q9UNZ2	Q9UNZ2	NSFL1C	Filtered
Q9UPT5	Q9UPT5	EXOC7	Filtered
Q9UPZ6	Q9UPZ6	THSD7A	Filtered
Q9UQ80	Q9UQ80	PA2G4	2.32E+03
Q9UQB8	Q9UQB8	BAIAP2	9.93E+03
Q9UQN3	Q9UQN3	CHMP2B	5.24E+04
Q9Y266	Q9Y266	NUDC	1.02E+05
Q9Y274	Q9Y274	ST3GAL6	3.47E+04
Q9Y279	Q9Y279	VSIG4	7.31E+04
Q9Y287	Q9Y287	ITM2B	2.69E+04
Q9Y2A7	Q9Y2A7	NCKAP1	5.75E+03
Q9Y2E4	Q9Y2E4	DIP2C	Filtered
Q9Y2E5	Q9Y2E5	MAN2B2	4.05E+04
Q9Y2Q0	Q9Y2Q0	ATP8A1	3.34E+03
Q9Y2Q3	Q9Y2Q3	GSTK1	Filtered
Q9Y2Q5	Q9Y2Q5	LAMTOR2	Filtered
Q9Y2S2	Q9Y2S2	CRYL1	2.26E+04
Q9Y2T2	Q9Y2T2	AP3M1	1.82E+03
Q9Y2T3	Q9Y2T3	GDA	1.13E+03
Q9Y2Y8	Q9Y2Y8	PRG3	6.62E+03
Q9Y365	Q9Y365	STARD10	3.96E+04
Q9Y376	Q9Y376	CAB39	Filtered
Q9Y3A5	Q9Y3A5	SBDS	Filtered
Q9Y3B3	Q9Y3B3	TMED7	9.87E+03
Q9Y3C6	Q9Y3C6	PPIL1	Filtered
Q9Y3F4	Q9Y3F4	STRAP	Filtered
Q9Y3I0	Q9Y3I0	RTCB	Filtered
Q9Y3Q0	Q9Y3Q0	NAALAD2	Filtered
Q9Y3Q3	Q9Y3Q3	TMED3	Filtered

Q9Y3R5	Q9Y3R5	DOP1B	3.08E+04
Q9Y485	Q9Y485	DMXL1	Filtered
Q9Y490	Q9Y490	TLN1	4.32E+03
Q9Y4C0	Q9Y4C0	NRXN3	5.97E+03
Q9Y4L1	Q9Y4L1	HYOU1	1.90E+04
Q9Y4X5	Q9Y4X5	ARIH1	Filtered
Q9Y512	Q9Y512	SAMM50	Filtered
Q9Y547	Q9Y547	HSPB11	3.10E+03
Q9Y570	Q9Y570	PPME1	3.63E+03
Q9Y5C1	Q9Y5C1	ANGPTL3	Filtered
Q9Y5E4	Q9Y5E4	PCDHB5	1.25E+04
Q9Y5I1	Q9Y5I1	PCDHA11	3.32E+03
Q9Y5K5	Q9Y5K5	UCHL5	Filtered
Q9Y5K6	Q9Y5K6	CD2AP	5.00E+03
Q9Y5P6	Q9Y5P6	GMPPB	6.97E+03
Q9Y5R8	Q9Y5R8	TRAPPC1	Filtered
Q9Y5X1	Q9Y5X1	SNX9	Filtered
Q9Y5Y6	Q9Y5Y6	ST14	2.16E+04
Q9Y5Y7	Q9Y5Y7	LYVE1	1.20E+05
Q9Y5Z4	Q9Y5Z4	HEBP2	3.99E+04
Q9Y608	Q9Y608	LRRFIP2	Filtered
Q9Y617	Q9Y617	PSAT1	1.20E+04
Q9Y624	Q9Y624	F11R	4.79E+04
Q9Y646	Q9Y646	CPQ	7.32E+04
Q9Y653	Q9Y653	ADGRG1	5.02E+03
Q9Y678	Q9Y678	COPG1	5.82E+03
Q9Y696	Q9Y696	CLIC4	Filtered
Q9Y6A4	Q9Y6A4	CFAP20	Filtered
Q9Y6C2	Q9Y6C2	EMILIN1	1.03E+04
Q9Y6D5	Q9Y6D5	ARFGEF2	8.35E+02
Q9Y6E0	Q9Y6E0	STK24	Filtered
Q9Y6G9	Q9Y6G9	DYNC1LI1	Filtered
Q9Y6Q5	Q9Y6Q5	AP1M2	1.77E+03
Q9Y6R7	Q9Y6R7	FCGBP	1.40E+05
Q9Y6U3	Q9Y6U3	SCIN	8.24E+03
Q9Y6W3	Q9Y6W3	CAPN7	1.68E+04
Q9Y6W5	Q9Y6W5	WASF2	2.75E+03
Q9Y6Y8	Q9Y6Y8	SEC23IP	Filtered

Sample 2.PG.Quantity	Sample 3.PG.Quantity	Sample 4.PG.Quantity	Sample 5.PG.Quantity
2.39E+04	4.63E+04	1.19E+04	8.65E+03
3.50E+04	Filtered	Filtered	9.48E+04
5.50E+04	7.65E+04	8.60E+04	1.67E+05
1.50E+06	6.37E+05	1.92E+06	2.90E+06
2.62E+04	5.94E+04	6.78E+04	6.70E+04
4.60E+06	1.90E+06	4.05E+06	1.23E+07
3.53E+04	2.14E+04	1.48E+04	4.48E+04
3.03E+05	1.25E+05	2.52E+05	2.15E+05
Filtered	1.96E+04	Filtered	Filtered
4.93E+05	2.16E+04	2.16E+05	1.90E+05
6.87E+03	1.32E+04	5.43E+03	6.08E+03
2.78E+04	1.08E+04	3.93E+04	2.96E+04
Filtered	3.40E+03	Filtered	Filtered
1.03E+04	Filtered	Filtered	1.32E+03
8.24E+03	2.73E+04	5.72E+03	8.84E+03
1.60E+04	6.75E+03	Filtered	Filtered
7.99E+02	2.83E+03	7.89E+02	9.00E+02
9.39E+04	2.90E+05	1.59E+05	1.16E+05
3.85E+04	1.82E+04	4.10E+04	1.23E+04
1.09E+05	1.77E+05	9.38E+04	7.95E+04
1.97E+04	1.43E+04	3.55E+04	3.59E+04
2.46E+04	1.06E+04	3.00E+04	3.28E+04
7.70E+03	Filtered	6.85E+03	Filtered
2.71E+04	2.11E+03	1.61E+04	2.29E+03
1.02E+05	2.48E+04	2.37E+05	1.43E+05
9.03E+03	1.14E+04	6.08E+03	5.01E+03
2.24E+05	3.08E+05	2.67E+05	2.85E+05
Filtered	3.65E+03	6.84E+02	2.87E+03
5.28E+04	3.00E+04	1.10E+05	1.90E+05
1.04E+04	7.43E+03	1.11E+04	1.07E+04
Filtered	Filtered	7.07E+03	Filtered
1.62E+04	1.80E+04	1.16E+04	1.88E+04
1.51E+04	3.09E+04	1.85E+04	1.85E+04
5.47E+05	1.31E+05	6.94E+05	3.71E+05
2.35E+03	1.15E+03	Filtered	7.15E+04
1.91E+06	5.79E+05	1.03E+06	3.00E+06
2.17E+05	3.42E+05	1.00E+05	1.92E+05
4.76E+04	1.41E+05	2.43E+04	5.28E+04
Filtered	4.21E+03	5.62E+02	2.46E+03
1.99E+05	1.21E+04	1.52E+04	1.21E+04
5.60E+04	2.26E+04	1.10E+05	1.10E+05
3.97E+03	4.92E+03	1.32E+04	1.17E+04
6.10E+04	1.64E+04	3.03E+04	2.69E+04
3.63E+04	1.00E+05	2.51E+04	4.69E+04
1.25E+05	1.88E+04	5.18E+04	3.83E+04
2.33E+04	2.04E+04	3.59E+04	5.48E+04

2.15E+05	1.14E+05	2.74E+05	1.84E+05
2.86E+03	2.24E+03	1.90E+03	4.06E+03
5.10E+03	9.71E+03	3.34E+03	2.63E+03
1.05E+04	4.16E+03	6.10E+03	3.80E+03
4.52E+04	3.41E+04	3.76E+04	2.87E+04
2.06E+05	5.75E+05	3.93E+05	2.78E+05
7.08E+03	1.48E+04	5.53E+03	8.21E+03
1.47E+04	4.55E+03	1.75E+04	2.41E+04
1.60E+05	3.15E+03	5.87E+04	7.04E+04
3.80E+04	3.37E+04	4.56E+04	3.60E+04
Filtered	7.97E+03	Filtered	Filtered
1.25E+05	9.62E+04	8.77E+04	8.49E+04
2.07E+04	3.43E+04	Filtered	Filtered
6.19E+04	1.32E+05	9.48E+04	1.09E+05
5.86E+05	1.05E+05	3.60E+05	3.02E+05
1.80E+04	1.27E+05	Filtered	3.58E+04
Filtered	Filtered	Filtered	9.32E+02
2.05E+04	4.31E+04	4.83E+04	3.66E+04
2.47E+05	3.84E+05	2.92E+05	2.00E+05
2.53E+04	1.80E+04	1.32E+04	1.02E+04
Filtered	1.69E+04	3.73E+03	3.00E+03
1.18E+05	4.45E+04	1.36E+05	1.61E+05
Filtered	Filtered	3.33E+03	Filtered
Filtered	2.51E+03	4.42E+02	Filtered
2.84E+04	Filtered	Filtered	3.44E+04
7.55E+03	1.75E+04	1.51E+04	1.48E+04
1.37E+04	3.85E+04	1.95E+04	5.70E+04
4.03E+04	2.62E+04	3.97E+04	2.66E+04
8.89E+04	1.06E+04	1.14E+05	1.67E+05
6.80E+03	6.90E+03	8.34E+03	7.28E+03
1.03E+05	6.28E+03	2.43E+04	2.50E+04
5.83E+04	1.55E+04	8.14E+04	5.24E+04
3.95E+04	6.81E+04	1.69E+04	3.22E+04
2.76E+03	7.02E+03	2.90E+03	1.97E+03
3.97E+03	8.39E+03	2.86E+03	Filtered
1.70E+03	4.11E+03	Filtered	Filtered
3.52E+03	5.17E+03	3.69E+03	2.92E+03
Filtered	1.44E+02	1.29E+03	Filtered
1.13E+04	2.31E+04	1.46E+04	1.29E+04
1.98E+04	2.44E+04	1.09E+04	1.37E+04
2.27E+04	1.23E+04	1.16E+04	1.36E+04
5.86E+02	4.95E+03	Filtered	2.48E+03
5.23E+03	5.88E+03	5.74E+03	3.17E+03
8.46E+03	3.31E+04	6.31E+03	3.12E+03
3.62E+04	1.68E+04	2.31E+04	2.58E+04
3.85E+04	3.74E+04	1.98E+04	2.56E+04
1.52E+04	2.90E+04	9.75E+03	2.23E+04

1.15E+05	1.30E+05	1.10E+05	9.80E+04
4.96E+04	2.04E+04	5.37E+04	5.09E+04
6.86E+04	2.16E+04	1.23E+05	5.10E+04
5.92E+04	1.02E+05	6.41E+04	5.98E+04
3.67E+05	2.95E+05	9.37E+05	4.38E+05
1.69E+04	9.31E+03	1.13E+04	7.83E+03
2.89E+04	1.02E+05	3.89E+04	3.10E+04
6.42E+03	1.12E+04	3.29E+03	7.63E+03
3.99E+05	1.31E+06	5.42E+05	7.30E+05
1.81E+04	1.27E+04	1.08E+04	4.26E+03
1.63E+04	1.76E+04	Filtered	1.20E+04
6.38E+03	9.44E+02	7.96E+03	1.95E+04
Filtered	1.83E+04	3.65E+03	5.33E+03
2.92E+03	1.96E+04	9.28E+03	2.09E+04
9.46E+03	1.13E+04	4.99E+03	5.90E+03
2.05E+04	3.40E+04	1.39E+04	3.56E+04
Filtered	Filtered	Filtered	Filtered
Filtered	2.26E+03	Filtered	Filtered
2.30E+04	4.77E+03	1.72E+04	1.22E+04
8.50E+04	1.81E+05	7.55E+04	8.12E+04
Filtered	2.57E+04	3.44E+03	8.02E+03
4.66E+03	1.07E+04	6.99E+03	3.73E+03
1.05E+04	1.64E+04	3.53E+03	2.67E+03
7.89E+04	3.30E+05	1.24E+05	1.19E+05
1.44E+05	3.22E+05	1.05E+05	3.15E+05
1.66E+04	4.22E+04	1.59E+04	1.27E+04
1.87E+05	6.43E+04	4.56E+05	4.88E+05
2.63E+05	1.25E+05	2.08E+05	6.93E+04
1.55E+05	2.79E+04	1.50E+05	1.63E+05
1.31E+04	6.12E+04	1.93E+04	3.39E+04
3.21E+04	2.19E+04	3.47E+04	3.92E+04
2.30E+04	7.22E+03	2.11E+04	2.03E+04
4.67E+05	2.07E+05	1.87E+05	2.18E+05
Filtered	1.79E+04	7.21E+03	9.79E+03
Filtered	1.38E+03	Filtered	1.11E+03
5.64E+04	1.79E+04	1.08E+04	3.88E+04
2.99E+04	6.24E+03	2.78E+04	Filtered
Filtered	2.25E+03	Filtered	Filtered
2.03E+04	5.12E+04	1.08E+04	1.39E+04
9.37E+03	3.17E+04	9.21E+03	1.07E+04
4.30E+04	2.37E+04	4.29E+04	4.80E+04
Filtered	1.95E+03	Filtered	Filtered
Filtered	3.17E+05	1.21E+05	1.91E+05
1.08E+05	2.59E+05	9.19E+04	8.64E+04
2.31E+03	2.43E+03	Filtered	1.13E+03
1.72E+04	5.62E+04	8.97E+03	1.87E+04
1.16E+05	3.81E+04	7.98E+04	1.10E+05

3.68E+04	4.52E+04	3.56E+04	1.57E+04
4.63E+03	Filtered	5.81E+03	4.52E+03
1.43E+04	1.61E+04	6.95E+03	3.88E+03
8.55E+04	3.52E+05	5.27E+04	8.13E+04
2.36E+04	4.84E+04	1.82E+04	1.30E+04
1.76E+05	1.93E+05	2.14E+05	1.66E+05
1.06E+04	5.34E+03	5.24E+03	5.66E+03
1.45E+04	3.97E+04	1.22E+04	1.50E+04
6.15E+03	2.06E+04	3.94E+03	Filtered
3.29E+04	4.81E+04	1.58E+04	2.29E+04
6.84E+04	1.62E+04	4.45E+04	3.26E+04
3.19E+04	1.05E+04	2.61E+04	4.07E+04
2.11E+04	2.80E+04	1.19E+03	1.37E+04
6.73E+03	Filtered	1.29E+04	9.95E+03
Filtered	Filtered	Filtered	1.13E+04
Filtered	8.90E+03	9.23E+03	5.49E+03
Filtered	Filtered	Filtered	5.80E+03
5.62E+03	3.22E+03	5.23E+03	3.84E+03
7.66E+05	2.14E+05	5.33E+05	5.62E+05
4.09E+04	6.35E+04	4.36E+04	3.28E+04
1.17E+03	Filtered	Filtered	Filtered
Filtered	2.15E+04	1.10E+04	Filtered
1.45E+04	3.40E+03	1.19E+04	3.64E+03
Filtered	Filtered	4.08E+03	3.04E+03
2.68E+03	2.81E+03	2.10E+03	2.95E+03
1.10E+04	1.88E+04	8.01E+03	5.31E+03
7.57E+05	1.98E+05	6.08E+05	9.44E+05
8.17E+03	1.03E+04	3.73E+03	6.21E+03
1.95E+04	2.21E+04	1.68E+04	7.46E+03
2.36E+04	6.83E+03	1.93E+04	1.11E+04
1.21E+04	3.47E+03	4.83E+03	Filtered
Filtered	Filtered	Filtered	Filtered
2.63E+03	3.82E+03	4.45E+03	Filtered
1.22E+03	1.05E+05	1.02E+04	6.88E+04
Filtered	1.31E+04	3.78E+03	4.66E+03
Filtered	1.46E+04	Filtered	Filtered
1.56E+05	1.60E+05	6.82E+04	6.57E+04
Filtered	1.51E+03	Filtered	Filtered
6.88E+03	7.19E+03	2.71E+03	6.86E+03
6.73E+03	2.39E+04	5.35E+03	6.84E+03
7.50E+02	3.74E+03	6.82E+02	7.94E+02
1.77E+04	9.83E+03	1.03E+04	Filtered
2.44E+04	5.61E+04	7.33E+03	3.17E+04
5.13E+03	4.85E+04	4.28E+04	9.39E+04
Filtered	Filtered	Filtered	2.03E+04
9.34E+03	1.73E+04	9.50E+03	8.29E+03
1.89E+04	1.04E+04	3.17E+04	5.38E+04

2.30E+04	Filtered	3.20E+04	4.43E+04
8.02E+04	8.12E+04	3.62E+04	3.07E+04
1.59E+05	4.22E+04	1.80E+05	1.29E+05
1.90E+04	1.86E+04	1.76E+04	2.94E+04
2.44E+04	Filtered	4.63E+03	2.82E+04
1.12E+04	2.37E+04	8.56E+03	7.64E+03
7.11E+03	2.04E+04	3.97E+03	5.38E+03
2.05E+04	3.17E+04	1.39E+04	1.09E+04
2.50E+04	1.67E+04	3.60E+04	5.23E+04
2.51E+03	4.57E+03	1.12E+03	Filtered
4.13E+04	6.72E+04	4.22E+04	3.04E+04
3.89E+04	9.68E+03	2.72E+04	2.65E+04
1.92E+04	6.35E+03	1.87E+04	1.24E+04
3.00E+03	2.26E+03	3.67E+03	3.16E+03
9.08E+04	1.71E+04	6.61E+04	7.46E+04
2.49E+03	2.86E+04	5.28E+03	2.08E+04
2.70E+04	4.99E+04	4.69E+04	1.89E+04
5.87E+04	7.76E+04	7.84E+04	4.00E+04
2.44E+04	2.11E+04	2.57E+04	1.19E+04
7.03E+03	9.82E+03	Filtered	9.98E+03
Filtered	6.88E+03	1.54E+03	1.88E+03
3.22E+04	9.47E+04	4.86E+04	1.52E+04
1.64E+04	1.85E+04	1.80E+04	1.51E+04
6.58E+04	7.08E+04	5.82E+04	3.01E+04
1.38E+04	5.16E+04	1.42E+04	1.26E+04
3.52E+03	3.45E+03	1.58E+03	Filtered
2.37E+04	8.84E+03	1.55E+04	1.68E+04
2.24E+04	3.74E+04	2.89E+04	3.55E+04
Filtered	7.14E+03	Filtered	Filtered
2.21E+05	1.47E+05	4.60E+05	9.90E+05
8.99E+03	1.64E+04	6.86E+03	2.44E+04
1.93E+04	2.03E+04	1.58E+04	1.53E+04
Filtered	Filtered	7.47E+02	Filtered
6.06E+04	2.90E+03	3.46E+04	4.76E+04
8.39E+02	3.87E+03	1.62E+03	Filtered
Filtered	Filtered	Filtered	Filtered
9.08E+04	2.12E+04	5.01E+04	4.63E+04
Filtered	7.42E+03	5.97E+03	2.68E+03
9.55E+04	9.71E+03	2.41E+03	Filtered
1.61E+03	Filtered	1.31E+03	Filtered
1.08E+04	8.69E+03	8.34E+03	2.58E+03
7.60E+05	1.87E+06	8.01E+05	4.52E+05
3.16E+05	2.32E+05	3.52E+05	2.91E+05
Filtered	5.68E+03	Filtered	Filtered
6.23E+03	5.02E+03	6.77E+03	7.33E+03
3.74E+02	6.54E+03	Filtered	Filtered
4.70E+04	2.03E+04	2.61E+04	2.71E+04

1.33E+03	3.94E+03	1.66E+03	6.54E+03
Filtered	1.84E+04	2.35E+04	5.77E+04
2.03E+04	7.20E+04	1.79E+04	1.54E+04
6.60E+03	Filtered	2.12E+04	1.36E+03
6.17E+04	2.98E+04	1.14E+05	2.25E+05
6.52E+04	1.35E+05	6.36E+04	5.20E+04
3.59E+04	1.73E+04	8.31E+04	4.36E+04
Filtered	2.41E+02	7.74E+02	Filtered
1.48E+04	7.19E+03	8.38E+03	5.74E+03
7.55E+04	7.99E+04	4.01E+04	2.44E+04
7.59E+04	2.29E+04	4.11E+04	5.71E+04
5.78E+04	4.41E+04	1.61E+05	1.55E+05
Filtered	1.52E+04	1.73E+03	Filtered
7.76E+03	1.41E+04	5.82E+03	4.35E+03
2.81E+04	6.89E+04	6.41E+04	6.52E+04
2.74E+03	2.94E+04	9.76E+03	5.01E+03
2.33E+04	1.86E+04	3.43E+04	2.19E+04
3.26E+03	3.85E+03	7.60E+03	1.19E+04
5.42E+04	4.38E+04	6.51E+04	5.42E+04
7.22E+04	1.26E+05	4.47E+04	9.18E+04
1.28E+03	3.98E+03	1.08E+03	9.18E+02
Filtered	Filtered	9.41E+03	2.23E+04
1.59E+05	1.35E+05	2.17E+05	2.34E+05
6.52E+03	1.66E+04	7.29E+03	1.02E+04
Filtered	5.54E+04	Filtered	Filtered
Filtered	3.69E+03	8.69E+02	Filtered
2.41E+04	7.80E+04	1.97E+04	1.85E+04
1.12E+04	4.37E+04	1.13E+04	1.42E+04
1.12E+05	1.45E+04	6.44E+04	1.00E+05
1.60E+05	7.17E+05	1.01E+05	2.36E+05
3.58E+04	9.18E+03	3.48E+04	1.25E+05
5.24E+03	3.02E+03	4.00E+03	8.61E+03
4.32E+04	1.32E+04	3.96E+04	2.22E+04
Filtered	Filtered	1.48E+04	1.76E+04
Filtered	4.71E+03	6.08E+02	Filtered
2.11E+04	2.26E+04	1.62E+04	1.13E+04
4.91E+03	3.06E+03	4.99E+03	1.45E+03
Filtered	1.85E+04	1.33E+03	4.65E+03
2.67E+05	4.40E+05	2.07E+05	3.44E+05
8.06E+03	1.44E+04	Filtered	2.61E+03
Filtered	3.13E+03	Filtered	3.35E+03
1.99E+03	5.42E+03	2.80E+03	7.44E+03
2.88E+03	Filtered	1.84E+03	9.65E+02
1.70E+04	3.80E+04	1.92E+04	1.58E+04
1.40E+04	2.65E+03	2.15E+04	3.70E+03
1.08E+04	9.27E+03	1.04E+04	6.51E+03
1.28E+05	4.18E+04	1.52E+05	1.14E+05

Filtered	Filtered	Filtered	Filtered
2.94E+04	6.76E+03	1.80E+04	1.03E+04
5.79E+04	2.41E+04	8.51E+04	9.38E+04
1.20E+04	7.66E+03	9.28E+03	1.15E+04
8.85E+05	6.81E+04	1.32E+06	9.48E+05
3.57E+05	2.15E+05	4.50E+05	4.49E+05
1.65E+05	6.60E+04	1.56E+05	2.55E+05
3.03E+04	6.97E+03	1.14E+04	6.00E+03
3.76E+05	4.03E+05	3.36E+05	2.17E+05
1.84E+04	1.86E+04	2.28E+04	2.22E+04
3.12E+03	6.76E+03	1.35E+03	2.73E+03
9.11E+04	1.45E+05	4.89E+04	2.86E+04
2.12E+04	1.50E+04	8.70E+03	3.50E+03
1.31E+04	4.29E+03	7.86E+03	1.40E+04
1.08E+05	1.65E+05	1.33E+05	7.83E+04
4.00E+05	1.12E+05	2.72E+05	4.47E+05
4.00E+04	5.36E+04	3.76E+04	2.06E+04
1.54E+04	2.49E+04	1.28E+04	1.43E+04
Filtered	2.73E+03	Filtered	Filtered
2.35E+05	3.06E+05	1.91E+05	1.28E+05
1.37E+04	8.32E+03	5.04E+03	Filtered
2.67E+06	9.00E+05	3.05E+06	2.61E+06
1.67E+04	1.01E+04	4.61E+03	6.90E+03
4.86E+06	8.23E+04	1.89E+04	3.45E+05
3.19E+04	3.28E+03	2.59E+04	1.95E+04
3.74E+04	3.92E+03	1.07E+04	8.50E+03
5.06E+02	1.59E+03	2.80E+03	6.73E+03
2.19E+05	3.92E+04	1.73E+05	1.14E+05
8.90E+03	1.49E+03	2.94E+03	Filtered
1.12E+05	7.41E+04	1.98E+05	1.08E+05
1.54E+04	7.38E+03	3.59E+04	3.80E+03
2.74E+05	5.62E+04	1.21E+05	6.41E+04
2.22E+04	1.21E+04	3.08E+04	2.33E+04
1.61E+05	5.56E+04	2.02E+05	1.02E+05
1.44E+05	3.68E+04	8.81E+04	1.01E+05
1.97E+06	2.32E+05	2.31E+06	8.64E+05
2.04E+05	5.84E+04	8.14E+04	6.33E+04
3.42E+06	6.25E+05	9.40E+05	6.71E+05
6.17E+06	1.20E+06	1.74E+06	1.27E+06
9.00E+04	4.96E+04	6.58E+04	6.01E+04
2.13E+06	1.35E+04	3.26E+04	3.38E+04
1.40E+06	1.32E+05	1.05E+05	6.62E+04
4.45E+04	9.99E+03	4.65E+03	7.12E+03
3.01E+05	1.10E+06	4.22E+05	6.43E+05
1.11E+06	6.01E+05	5.61E+05	8.00E+05
1.36E+04	7.62E+05	6.84E+04	1.29E+04
4.16E+05	1.37E+05	5.90E+05	5.26E+05

1.35E+07	3.66E+06	8.03E+06	8.69E+06
Filtered	5.29E+03	Filtered	Filtered
3.81E+04	6.39E+04	3.98E+04	7.53E+04
9.98E+04	4.58E+04	1.72E+05	1.41E+05
2.62E+04	2.02E+04	4.43E+04	6.45E+04
2.55E+06	7.66E+05	3.14E+06	1.54E+06
Filtered	1.41E+04	8.02E+04	7.02E+04
Filtered	Filtered	1.65E+05	6.97E+04
2.90E+04	2.47E+04	5.54E+04	3.08E+04
Filtered	1.81E+03	Filtered	5.89E+03
4.90E+04	1.94E+04	7.17E+04	1.50E+04
3.36E+04	6.89E+03	3.44E+04	2.81E+04
6.77E+04	6.47E+03	3.42E+04	4.86E+04
1.14E+06	6.10E+05	1.28E+06	1.54E+06
Filtered	Filtered	Filtered	1.52E+04
2.56E+06	4.90E+05	3.65E+06	7.57E+06
3.37E+05	7.72E+04	5.85E+05	1.45E+06
3.44E+04	2.14E+04	5.07E+04	6.83E+04
5.29E+04	Filtered	6.13E+04	9.02E+04
3.82E+05	1.05E+05	4.48E+05	2.06E+05
3.38E+06	3.92E+05	5.97E+05	8.30E+05
6.22E+05	2.11E+05	4.49E+05	4.64E+05
2.20E+06	7.81E+05	2.58E+06	2.29E+06
2.31E+05	2.07E+06	5.44E+06	1.88E+07
1.01E+07	2.40E+06	4.85E+06	7.01E+06
1.75E+07	5.31E+06	7.14E+06	8.96E+06
2.84E+05	1.01E+05	3.85E+04	4.58E+04
2.93E+04	1.57E+04	4.68E+04	2.96E+04
1.46E+07	3.75E+06	9.01E+06	1.29E+07
1.46E+03	8.63E+03	3.04E+04	2.64E+04
2.27E+04	5.71E+03	3.21E+03	2.35E+04
3.32E+03	7.79E+03	2.74E+03	Filtered
3.27E+03	Filtered	1.28E+03	Filtered
6.11E+04	Filtered	3.19E+04	1.08E+04
Filtered	2.44E+04	Filtered	Filtered
2.91E+05	7.00E+04	3.92E+05	4.52E+05
4.38E+05	3.03E+05	9.57E+05	9.97E+05
7.06E+04	2.14E+04	6.76E+04	3.95E+04
3.71E+04	2.98E+04	2.58E+04	2.49E+04
8.88E+05	9.01E+04	3.66E+05	3.27E+05
4.79E+05	6.17E+04	1.90E+05	6.13E+05
2.38E+04	4.28E+03	7.25E+03	1.29E+03
7.70E+05	4.41E+04	9.96E+04	4.80E+04
5.64E+05	1.10E+05	3.35E+05	3.93E+05
3.35E+05	1.79E+04	1.53E+05	1.28E+05
2.13E+05	2.02E+04	7.97E+04	3.85E+04
4.37E+05	5.83E+03	3.06E+04	2.37E+04

1.11E+05	2.71E+04	1.25E+05	1.39E+05
2.09E+04	8.63E+03	1.83E+04	1.86E+04
5.57E+04	1.94E+04	3.64E+04	2.28E+04
2.93E+04	Filtered	2.64E+03	Filtered
5.50E+03	Filtered	Filtered	2.58E+03
4.79E+05	1.07E+05	1.17E+05	8.72E+04
8.76E+04	4.54E+03	6.70E+03	Filtered
1.01E+05	1.08E+04	2.87E+04	2.63E+04
2.78E+05	1.17E+05	2.46E+05	3.29E+05
4.37E+05	8.64E+04	1.28E+06	6.71E+05
1.29E+06	4.22E+05	1.49E+06	1.22E+06
6.53E+05	1.85E+05	1.10E+06	4.62E+05
2.41E+07	7.67E+06	4.15E+07	4.97E+07
2.85E+06	3.21E+05	2.57E+06	6.59E+05
7.21E+05	1.84E+05	1.39E+06	4.40E+05
1.75E+06	2.36E+05	5.74E+05	4.59E+05
1.02E+08	4.19E+07	4.36E+07	4.20E+07
6.72E+05	2.21E+05	2.55E+05	1.74E+05
9.02E+04	Filtered	Filtered	Filtered
4.94E+03	6.51E+03	5.23E+03	4.98E+03
2.53E+06	8.84E+05	9.55E+05	7.46E+05
2.59E+06	1.31E+06	3.89E+05	4.09E+05
5.00E+05	2.33E+05	2.98E+05	2.90E+05
1.12E+05	1.15E+04	2.34E+04	1.94E+04
2.27E+05	4.11E+04	1.89E+04	2.76E+04
1.20E+06	8.01E+05	6.35E+05	2.97E+05
7.39E+03	2.13E+03	3.41E+04	1.80E+04
9.85E+04	6.87E+04	7.61E+04	5.35E+04
1.87E+04	6.13E+03	1.56E+04	4.98E+03
6.13E+04	1.08E+04	7.40E+03	Filtered
1.31E+05	5.59E+04	1.69E+05	8.33E+04
1.38E+05	2.29E+03	2.23E+04	4.06E+02
4.73E+05	1.41E+05	5.60E+05	2.86E+05
4.88E+04	2.29E+04	2.44E+04	1.83E+04
6.68E+03	1.55E+04	3.69E+03	3.13E+03
1.88E+04	1.58E+04	3.07E+04	1.29E+04
1.95E+04	5.29E+04	2.88E+04	7.67E+04
1.67E+05	3.18E+05	1.67E+05	1.34E+05
5.66E+04	1.34E+05	5.46E+04	1.03E+05
1.83E+05	5.78E+05	1.63E+05	2.63E+05
1.09E+05	3.61E+05	1.07E+05	2.10E+05
3.98E+05	5.71E+03	1.21E+05	2.57E+05
Filtered	Filtered	3.38E+04	Filtered
2.25E+06	4.29E+05	3.46E+06	5.56E+06
4.87E+05	1.31E+05	5.88E+05	6.00E+05
Filtered	1.05E+04	1.08E+03	Filtered
1.19E+05	5.94E+04	1.59E+05	1.44E+05

6.91E+04	1.78E+04	2.74E+04	1.62E+04
2.41E+04	1.73E+04	4.21E+04	1.01E+05
5.37E+05	1.00E+05	4.40E+05	5.93E+05
5.79E+05	7.92E+04	3.32E+05	2.41E+05
2.19E+06	1.71E+05	9.52E+05	1.05E+06
5.91E+04	7.29E+03	2.29E+04	2.78E+04
1.10E+06	6.97E+03	7.35E+03	2.52E+03
1.17E+05	1.98E+05	9.82E+04	1.47E+05
3.21E+04	5.61E+04	8.42E+03	1.75E+04
7.87E+03	Filtered	Filtered	Filtered
8.99E+03	Filtered	1.72E+04	1.35E+04
3.41E+04	7.20E+04	4.29E+04	2.16E+04
9.10E+04	6.05E+04	4.01E+04	1.73E+04
3.20E+06	6.52E+05	2.52E+06	1.55E+06
2.93E+03	1.11E+04	7.81E+03	2.75E+04
1.58E+05	1.66E+05	1.52E+05	1.78E+05
1.74E+04	7.77E+03	1.80E+03	Filtered
5.47E+04	9.16E+04	4.22E+04	8.67E+04
1.39E+05	9.56E+04	5.19E+04	4.94E+04
4.90E+04	1.51E+04	2.73E+04	1.41E+04
5.13E+04	1.91E+04	2.71E+04	3.69E+04
3.96E+05	1.53E+05	6.81E+05	5.12E+05
1.24E+05	5.48E+04	9.88E+04	1.54E+05
1.26E+05	7.30E+04	1.62E+05	2.40E+05
3.65E+03	7.16E+02	2.45E+03	Filtered
1.35E+07	1.00E+07	2.05E+07	7.72E+06
3.45E+04	1.24E+04	9.88E+04	2.67E+04
3.13E+04	6.48E+03	Filtered	Filtered
2.12E+06	6.18E+05	2.72E+05	2.19E+05
3.13E+06	5.07E+05	2.09E+06	9.34E+05
1.15E+06	3.21E+05	8.02E+05	5.58E+05
2.79E+05	4.17E+04	1.49E+05	1.82E+05
2.56E+05	6.94E+04	1.84E+04	1.18E+04
1.02E+04	2.77E+04	7.75E+03	1.49E+04
6.83E+04	1.51E+04	5.04E+04	3.86E+04
7.15E+03	Filtered	1.55E+04	8.79E+03
2.94E+03	1.13E+04	1.91E+03	2.69E+03
2.72E+04	2.63E+04	6.42E+04	4.19E+04
3.70E+05	1.32E+05	1.38E+06	1.48E+06
1.37E+05	4.00E+04	1.17E+05	1.26E+05
Filtered	Filtered	2.16E+03	6.02E+03
3.66E+04	1.74E+04	3.81E+04	7.50E+04
9.32E+04	4.66E+03	1.28E+04	1.56E+04
8.71E+04	2.34E+04	9.58E+04	8.08E+04
2.74E+05	7.41E+04	7.05E+04	1.92E+04
5.81E+05	5.49E+04	1.70E+05	1.69E+04
7.51E+04	6.00E+04	1.01E+05	4.01E+04

5.18E+03	6.20E+03	1.08E+04	4.92E+03
Filtered	3.72E+03	Filtered	Filtered
1.65E+04	Filtered	Filtered	Filtered
4.50E+04	1.74E+04	1.69E+04	4.75E+04
5.60E+04	3.59E+03	3.88E+04	1.76E+04
6.93E+04	3.05E+04	3.08E+05	1.55E+05
9.87E+05	2.14E+05	3.59E+06	3.69E+06
6.79E+04	1.69E+04	1.33E+05	6.63E+04
7.69E+04	2.14E+04	3.12E+04	1.27E+04
1.12E+04	2.22E+04	1.10E+04	7.47E+03
1.35E+06	4.09E+05	7.86E+04	1.38E+05
2.66E+06	6.14E+05	5.41E+06	7.78E+05
1.70E+05	3.03E+04	1.44E+05	6.17E+04
Filtered	1.32E+04	4.47E+03	Filtered
3.15E+04	2.90E+04	1.74E+04	3.61E+04
1.83E+05	2.54E+05	1.85E+05	1.26E+05
3.15E+04	1.04E+04	4.19E+04	2.94E+04
1.16E+04	1.43E+04	1.04E+04	4.37E+03
2.19E+04	4.53E+04	1.94E+04	2.32E+04
2.42E+04	4.42E+04	1.16E+04	2.58E+04
1.41E+03	1.95E+03	1.88E+03	3.62E+03
9.22E+03	2.80E+03	1.10E+04	1.13E+03
1.22E+05	7.45E+04	1.22E+05	1.51E+05
2.50E+06	2.81E+05	1.32E+06	9.33E+05
3.09E+05	1.23E+05	1.54E+05	2.66E+04
Filtered	5.15E+03	2.05E+03	Filtered
1.71E+04	1.26E+05	2.60E+04	4.34E+04
5.71E+04	2.42E+04	9.28E+04	9.78E+04
2.67E+05	3.06E+05	2.33E+05	1.75E+05
1.61E+04	3.01E+04	9.66E+03	Filtered
4.50E+04	2.46E+04	6.00E+04	6.43E+04
2.90E+04	6.11E+04	1.19E+04	4.09E+04
3.06E+04	2.24E+04	1.33E+04	6.04E+03
1.21E+07	2.60E+07	7.69E+06	1.19E+07
1.79E+05	3.34E+04	5.97E+04	7.85E+04
1.33E+06	2.37E+05	5.95E+05	7.16E+05
2.13E+05	3.32E+05	1.95E+05	1.16E+05
4.46E+04	8.78E+03	1.17E+04	2.75E+03
1.53E+04	1.78E+02	1.19E+04	Filtered
4.13E+03	Filtered	9.03E+03	7.80E+03
1.29E+04	3.77E+03	7.62E+03	8.75E+03
8.87E+04	1.18E+05	8.13E+04	4.40E+04
2.98E+04	3.09E+04	2.08E+04	2.34E+04
5.66E+03	6.91E+03	1.38E+04	Filtered
Filtered	Filtered	3.86E+03	1.68E+03
4.28E+04	1.10E+04	4.02E+04	4.33E+04
2.43E+06	1.72E+06	4.53E+06	4.52E+06

1.30E+05	3.96E+05	1.74E+05	1.89E+05
2.11E+05	1.29E+05	2.27E+05	3.23E+05
8.72E+04	1.81E+05	1.50E+05	6.49E+04
3.51E+04	1.34E+05	3.43E+04	3.77E+04
7.75E+05	2.17E+05	6.73E+05	1.70E+06
1.08E+05	2.08E+05	9.02E+04	9.28E+04
5.56E+03	2.48E+04	5.14E+03	Filtered
1.02E+08	1.48E+07	2.75E+07	2.49E+07
6.10E+03	2.75E+03	3.56E+03	5.52E+03
3.90E+03	4.37E+04	3.62E+04	9.91E+03
5.81E+03	7.86E+03	6.48E+03	1.88E+03
1.72E+04	1.22E+04	7.24E+03	3.07E+03
1.77E+05	1.47E+05	2.98E+05	2.21E+05
1.27E+07	4.79E+06	2.25E+07	1.54E+07
2.51E+06	1.75E+07	1.09E+05	8.13E+06
1.15E+05	2.70E+04	2.49E+05	1.52E+05
2.33E+04	4.66E+04	1.77E+04	3.19E+04
2.29E+04	1.10E+05	2.70E+04	5.01E+04
3.42E+05	1.72E+05	3.52E+05	5.15E+05
1.13E+06	3.35E+05	1.57E+06	2.06E+06
1.94E+04	7.17E+03	1.46E+04	1.08E+04
1.09E+05	3.84E+04	1.31E+05	1.08E+05
1.05E+04	6.98E+03	1.04E+04	1.20E+04
7.09E+04	5.14E+04	1.15E+05	1.81E+05
Filtered	6.96E+03	Filtered	2.24E+03
3.72E+05	7.84E+05	2.70E+05	2.62E+05
2.64E+05	1.31E+05	2.14E+04	1.21E+04
4.01E+03	4.08E+03	1.70E+04	1.40E+04
2.76E+05	3.13E+05	3.42E+05	4.04E+05
6.94E+04	9.92E+03	9.75E+03	Filtered
7.92E+05	9.52E+05	5.64E+05	1.12E+06
3.47E+04	Filtered	1.63E+04	Filtered
3.70E+04	7.02E+03	3.53E+04	3.83E+04
1.16E+06	1.29E+05	2.80E+05	4.55E+05
1.51E+06	3.67E+05	3.82E+06	1.81E+06
1.14E+05	2.68E+04	1.64E+05	1.65E+05
1.43E+03	Filtered	Filtered	Filtered
4.03E+04	2.41E+04	4.07E+04	2.17E+04
3.64E+05	1.89E+04	4.01E+04	2.85E+04
3.34E+05	1.36E+05	9.21E+05	6.70E+05
2.10E+04	1.42E+04	9.65E+03	1.21E+04
1.34E+05	9.97E+04	1.05E+05	9.26E+04
Filtered	1.28E+04	Filtered	Filtered
Filtered	Filtered	2.10E+03	Filtered
3.76E+05	5.54E+04	8.45E+04	2.65E+04
2.71E+05	2.40E+04	8.12E+04	1.50E+04
2.59E+04	3.96E+04	2.17E+04	3.84E+04

2.86E+05	7.32E+05	2.22E+05	2.00E+05
2.06E+04	1.59E+03	5.87E+03	2.37E+04
2.31E+04	Filtered	1.64E+04	Filtered
4.70E+04	5.74E+04	3.90E+04	2.66E+04
1.84E+05	5.18E+05	2.01E+05	2.30E+05
1.44E+05	6.74E+04	1.37E+05	8.36E+04
2.53E+05	2.54E+05	1.70E+05	1.82E+05
1.30E+05	3.80E+04	5.93E+04	5.13E+04
2.75E+04	2.12E+03	1.79E+04	2.28E+04
1.62E+03	Filtered	1.83E+03	Filtered
1.19E+04	4.34E+04	1.29E+04	1.78E+04
Filtered	Filtered	5.15E+03	Filtered
9.02E+04	1.63E+05	1.32E+05	9.10E+04
6.50E+03	9.95E+03	3.12E+03	6.86E+03
8.17E+04	9.11E+04	6.91E+04	4.44E+04
5.03E+03	3.10E+04	6.67E+03	1.21E+04
6.14E+04	7.94E+04	4.89E+04	5.81E+04
1.51E+05	1.25E+05	2.94E+05	2.75E+05
6.14E+04	1.96E+04	6.48E+04	7.65E+04
1.27E+05	6.11E+04	1.53E+05	2.13E+05
1.77E+05	1.22E+05	1.83E+05	1.46E+05
9.28E+04	1.01E+04	3.10E+04	1.86E+04
Filtered	2.29E+03	1.91E+03	4.21E+03
3.80E+04	1.72E+04	1.71E+04	1.68E+04
2.15E+04	4.87E+03	1.67E+04	1.31E+04
2.28E+04	2.96E+04	1.46E+04	1.45E+04
8.52E+03	3.54E+04	1.17E+04	2.02E+04
4.96E+05	1.72E+05	1.25E+05	1.01E+05
2.18E+03	1.32E+03	9.53E+03	4.37E+03
3.85E+03	Filtered	Filtered	Filtered
8.96E+03	2.77E+03	3.29E+03	Filtered
2.23E+03	Filtered	Filtered	9.07E+03
Filtered	2.20E+03	Filtered	9.57E+02
2.86E+06	5.06E+06	5.25E+06	4.53E+06
1.83E+05	3.01E+05	3.76E+05	9.24E+05
1.70E+05	9.57E+04	1.30E+05	2.20E+05
2.70E+05	2.98E+05	1.38E+05	1.59E+05
2.23E+06	6.50E+05	1.24E+06	1.87E+06
1.90E+04	5.23E+04	Filtered	1.82E+04
3.46E+06	2.94E+06	1.50E+06	1.73E+06
2.45E+05	8.70E+04	9.88E+04	9.16E+04
2.07E+06	2.31E+06	2.96E+06	2.81E+06
2.01E+06	6.67E+05	1.86E+06	2.68E+06
1.46E+07	2.65E+06	1.63E+07	1.39E+07
2.11E+04	8.71E+04	1.50E+04	3.46E+04
1.97E+06	5.65E+05	3.41E+06	2.80E+06
5.15E+04	1.64E+04	7.06E+04	3.16E+04

2.35E+04	2.38E+04	2.12E+04	2.29E+04
3.02E+05	4.16E+05	1.52E+06	2.43E+06
1.20E+03	6.10E+03	2.23E+03	2.86E+03
7.06E+05	3.62E+05	8.06E+05	8.42E+05
5.02E+04	5.65E+04	4.25E+04	4.83E+04
5.96E+04	1.26E+04	1.78E+04	2.28E+03
2.60E+06	2.28E+06	5.16E+06	3.40E+06
4.22E+03	2.33E+04	1.62E+04	2.21E+04
2.16E+05	2.20E+05	1.70E+05	1.51E+05
6.41E+03	1.91E+04	4.39E+03	3.52E+03
6.15E+04	1.28E+04	8.50E+04	1.15E+05
1.81E+05	7.56E+04	2.77E+05	2.98E+05
6.11E+03	5.03E+03	2.43E+04	1.64E+04
Filtered	8.88E+02	1.12E+03	3.60E+03
Filtered	1.54E+03	1.01E+04	Filtered
3.00E+04	5.45E+04	2.89E+04	1.91E+04
6.46E+04	3.54E+04	2.62E+04	1.55E+04
1.47E+06	2.00E+05	1.05E+06	7.96E+05
4.21E+04	2.64E+04	2.66E+04	2.04E+04
4.08E+04	8.90E+04	4.65E+04	4.39E+04
2.30E+05	7.64E+04	2.37E+05	1.57E+05
1.74E+05	2.13E+05	1.20E+05	1.12E+05
3.29E+03	Filtered	Filtered	Filtered
3.12E+03	6.23E+03	3.19E+03	2.47E+03
1.27E+04	3.31E+03	2.92E+03	Filtered
8.09E+03	2.77E+03	2.15E+03	7.00E+03
3.64E+04	8.55E+04	1.96E+04	3.53E+04
1.03E+04	2.18E+04	8.73E+03	2.08E+04
6.26E+04	6.81E+04	6.63E+04	6.35E+04
1.83E+06	2.88E+06	1.87E+06	1.31E+06
3.68E+04	3.60E+04	6.88E+03	5.25E+03
2.02E+04	1.64E+04	8.84E+03	8.64E+03
5.04E+04	Filtered	9.56E+04	7.68E+04
1.68E+04	4.69E+03	1.86E+04	1.29E+05
4.80E+04	1.87E+05	7.73E+04	9.06E+04
8.48E+04	1.83E+05	9.16E+04	5.12E+04
Filtered	2.24E+04	Filtered	Filtered
6.08E+03	6.51E+03	6.18E+03	5.34E+03
Filtered	1.84E+04	Filtered	9.78E+03
1.01E+04	2.10E+04	1.22E+04	8.41E+03
4.17E+05	9.09E+04	2.83E+05	2.53E+05
3.44E+04	Filtered	1.84E+04	Filtered
1.07E+05	3.48E+04	1.46E+05	2.20E+05
2.68E+04	8.44E+03	3.92E+04	3.55E+04
6.39E+03	2.91E+04	6.65E+03	1.48E+04
2.59E+04	2.09E+04	5.56E+04	1.88E+04
1.45E+05	3.82E+05	7.09E+04	1.32E+05

9.13E+04	3.07E+05	7.33E+04	9.52E+04
1.66E+03	5.82E+03	2.89E+03	3.62E+03
1.99E+04	4.36E+04	1.66E+04	1.71E+04
7.27E+04	6.07E+05	9.73E+04	1.24E+05
2.99E+05	1.84E+05	6.42E+05	9.29E+05
5.67E+04	6.48E+04	3.10E+04	3.47E+04
5.01E+04	5.78E+04	5.08E+04	4.16E+04
5.14E+04	1.54E+04	2.59E+04	Filtered
8.88E+04	6.18E+04	5.53E+04	2.36E+04
Filtered	7.29E+02	3.14E+03	Filtered
8.46E+03	3.62E+03	1.28E+04	5.86E+03
2.80E+05	1.12E+06	5.13E+05	1.04E+06
7.99E+04	1.66E+05	7.46E+04	7.82E+04
2.44E+04	1.13E+04	3.34E+04	4.55E+04
3.10E+05	6.30E+04	5.04E+05	3.71E+05
2.59E+04	8.70E+03	2.42E+04	1.57E+05
1.28E+05	2.50E+05	1.03E+05	6.25E+04
1.36E+06	1.58E+05	6.05E+05	5.19E+05
1.58E+05	4.27E+04	5.07E+04	8.87E+05
5.61E+04	4.59E+03	2.24E+04	6.51E+04
3.38E+04	5.81E+03	3.64E+04	9.39E+04
4.25E+03	1.17E+04	8.85E+02	1.40E+04
Filtered	7.38E+03	1.56E+03	2.66E+03
3.53E+04	5.20E+04	1.04E+04	1.94E+04
6.35E+04	2.49E+04	1.21E+05	4.65E+04
5.38E+04	1.73E+05	3.42E+04	3.52E+04
1.62E+04	6.30E+04	1.37E+04	1.60E+04
3.48E+04	5.84E+04	3.58E+04	3.23E+04
Filtered	5.40E+03	Filtered	Filtered
8.71E+04	1.43E+05	5.83E+04	6.10E+04
5.40E+04	2.10E+04	5.74E+04	4.27E+04
1.80E+07	8.56E+06	2.42E+07	2.82E+07
2.98E+04	6.28E+03	2.75E+04	2.98E+04
5.32E+03	2.90E+04	1.23E+04	3.14E+04
4.56E+03	8.50E+02	6.83E+03	1.31E+04
3.14E+04	1.09E+04	2.09E+04	1.65E+04
2.74E+04	7.43E+04	2.80E+04	2.92E+04
1.35E+05	4.42E+05	2.39E+05	2.21E+05
1.55E+04	1.22E+04	5.13E+03	3.34E+03
1.12E+03	9.49E+03	3.82E+03	1.23E+04
2.28E+05	1.10E+05	4.11E+05	4.91E+05
4.79E+04	7.37E+04	2.75E+04	5.06E+04
2.30E+05	3.93E+05	2.30E+05	1.61E+05
3.73E+05	4.39E+05	3.08E+05	2.68E+05
Filtered	1.29E+04	Filtered	5.38E+03
5.33E+04	3.44E+04	2.93E+04	1.31E+04
1.34E+04	6.18E+04	3.04E+04	2.24E+04

1.84E+04	5.70E+03	2.64E+04	3.58E+04
1.57E+03	2.82E+03	7.53E+03	1.03E+04
1.61E+04	1.92E+04	5.54E+03	8.52E+03
Filtered	2.56E+02	7.61E+02	1.79E+03
3.54E+03	1.35E+04	3.01E+03	3.48E+03
2.01E+03	Filtered	5.51E+04	Filtered
2.57E+04	1.15E+04	1.00E+04	8.84E+03
1.94E+06	3.02E+06	1.36E+06	1.17E+06
2.34E+05	7.63E+04	1.87E+05	1.42E+05
2.55E+04	Filtered	Filtered	Filtered
3.42E+04	7.49E+04	3.39E+04	1.42E+04
9.18E+04	3.33E+04	1.41E+05	1.48E+05
2.25E+06	1.39E+07	5.20E+06	1.18E+07
1.93E+05	1.21E+05	2.12E+05	1.04E+05
1.69E+04	1.49E+04	1.77E+04	Filtered
3.46E+05	1.44E+05	2.79E+05	2.53E+05
2.52E+04	3.15E+04	1.19E+04	1.63E+04
5.30E+04	3.68E+03	4.75E+04	7.38E+03
6.08E+04	9.55E+04	3.49E+04	2.59E+04
2.05E+05	1.79E+05	3.15E+05	4.07E+05
9.86E+04	1.66E+05	7.07E+04	3.68E+04
3.02E+03	8.18E+03	Filtered	Filtered
4.90E+03	2.47E+04	2.37E+04	9.48E+04
1.82E+03	3.29E+03	6.03E+03	Filtered
2.95E+04	2.08E+04	4.54E+04	4.19E+04
2.11E+04	3.77E+03	7.09E+03	1.16E+04
8.13E+04	7.60E+04	1.08E+05	1.04E+05
5.57E+04	8.75E+04	1.13E+05	9.19E+04
1.41E+06	6.23E+05	1.39E+06	1.96E+06
7.23E+04	3.20E+04	3.95E+04	4.03E+04
7.05E+04	3.93E+04	9.91E+04	1.14E+05
7.24E+04	1.04E+05	2.69E+04	5.02E+04
3.42E+05	6.08E+04	3.25E+05	Filtered
Filtered	Filtered	7.80E+03	1.56E+04
2.52E+04	1.55E+04	2.04E+04	3.74E+04
2.35E+04	1.01E+04	4.80E+04	7.22E+04
2.10E+05	1.39E+05	1.99E+05	3.51E+05
5.99E+03	5.25E+03	1.13E+04	1.21E+04
1.93E+05	1.08E+05	2.09E+05	1.36E+05
7.33E+05	3.39E+06	1.64E+06	1.33E+06
4.52E+04	4.68E+04	3.59E+04	3.45E+04
3.49E+03	Filtered	2.31E+03	Filtered
1.04E+05	5.48E+04	1.48E+05	3.45E+05
1.88E+04	2.74E+04	1.97E+04	1.67E+04
4.74E+04	6.23E+04	8.18E+04	5.25E+04
2.22E+03	3.81E+03	Filtered	Filtered
4.15E+04	3.23E+04	2.61E+04	1.39E+04

Filtered	2.85E+03	2.22E+03	Filtered
1.23E+04	4.11E+04	1.82E+04	1.22E+04
5.48E+03	1.89E+03	6.46E+03	6.53E+03
4.23E+04	8.93E+03	7.45E+03	1.50E+04
Filtered	5.06E+03	Filtered	Filtered
1.42E+04	8.40E+03	1.66E+04	1.69E+04
4.62E+03	1.26E+04	3.38E+03	7.02E+03
5.62E+05	1.58E+05	1.84E+06	2.07E+06
4.12E+04	9.01E+03	1.64E+04	8.07E+03
1.04E+05	1.98E+05	9.71E+04	7.02E+04
1.53E+04	1.74E+04	3.19E+04	6.92E+04
9.49E+03	1.36E+04	2.93E+05	9.95E+03
4.13E+04	6.51E+04	2.44E+04	2.57E+04
4.46E+05	1.14E+05	3.00E+05	1.96E+05
7.31E+03	2.00E+04	3.56E+03	6.07E+03
Filtered	5.51E+02	1.26E+03	Filtered
8.32E+04	1.90E+05	5.91E+04	4.25E+04
1.92E+04	2.13E+04	2.06E+04	9.10E+03
2.98E+04	5.23E+02	1.72E+04	Filtered
8.16E+04	6.09E+04	6.48E+04	3.30E+04
9.39E+04	3.52E+04	7.33E+04	1.13E+05
6.79E+04	9.84E+03	1.86E+04	3.13E+05
6.48E+04	5.02E+04	2.48E+04	3.39E+04
4.25E+05	1.57E+05	2.16E+05	2.98E+05
1.87E+05	9.31E+05	2.37E+05	2.84E+05
1.39E+05	5.48E+04	1.52E+05	1.31E+05
9.76E+04	2.66E+04	1.97E+05	1.64E+05
1.26E+04	7.22E+03	1.26E+04	2.21E+04
2.35E+05	4.25E+05	2.52E+05	2.77E+05
1.94E+03	4.67E+03	1.28E+03	1.28E+03
8.52E+05	1.90E+05	1.12E+06	5.24E+05
4.59E+04	4.41E+05	1.17E+05	3.17E+05
1.69E+05	6.86E+03	5.28E+03	3.76E+03
1.33E+05	1.09E+03	2.31E+03	2.80E+03
3.04E+05	6.89E+04	1.86E+05	1.80E+05
9.07E+04	2.04E+04	1.10E+05	9.15E+04
2.20E+03	1.01E+04	2.91E+03	2.64E+03
1.93E+04	5.37E+04	1.09E+05	9.75E+04
3.99E+04	6.32E+04	4.13E+04	3.72E+04
9.25E+04	1.64E+04	1.26E+05	1.01E+05
6.34E+03	5.32E+04	4.32E+04	7.21E+03
2.88E+05	5.93E+05	5.27E+05	2.38E+05
2.22E+05	5.35E+04	1.43E+04	2.06E+04
1.44E+04	3.15E+03	4.05E+04	4.39E+04
2.04E+03	4.70E+03	2.16E+03	1.35E+03
1.82E+05	5.34E+05	1.59E+05	1.58E+05
Filtered	1.61E+04	4.33E+03	9.91E+03

3.36E+03	1.10E+04	2.18E+03	4.61E+03
2.91E+04	6.32E+04	2.27E+04	2.85E+04
1.31E+04	3.49E+04	Filtered	Filtered
4.64E+04	1.66E+04	3.11E+04	2.93E+04
8.42E+03	3.10E+03	2.79E+04	2.15E+04
Filtered	5.45E+03	4.93E+03	5.90E+02
1.33E+05	1.70E+04	1.32E+05	1.08E+05
Filtered	Filtered	Filtered	1.16E+03
1.68E+04	8.43E+03	3.13E+04	3.66E+04
2.67E+04	2.01E+04	2.75E+04	2.14E+04
9.12E+04	1.34E+05	9.64E+04	8.38E+04
6.04E+04	3.23E+04	3.82E+04	7.32E+03
6.80E+04	1.01E+05	1.04E+05	4.18E+04
8.99E+03	1.56E+04	7.07E+03	6.27E+03
Filtered	4.42E+03	Filtered	Filtered
7.07E+04	2.92E+04	1.03E+05	2.68E+05
3.23E+04	2.78E+04	1.46E+04	1.72E+04
3.43E+03	7.13E+03	Filtered	Filtered
3.87E+04	4.08E+03	1.42E+03	2.02E+03
7.39E+03	3.35E+04	7.75E+03	1.24E+04
2.31E+04	9.99E+03	1.24E+04	2.00E+04
2.70E+03	5.34E+03	4.35E+04	1.05E+05
7.55E+04	1.77E+05	2.15E+05	9.76E+04
1.50E+05	1.24E+05	1.23E+05	4.74E+04
1.39E+05	5.39E+04	1.91E+05	1.58E+05
2.57E+05	4.58E+04	1.57E+05	1.72E+05
3.91E+05	5.86E+05	2.27E+05	3.73E+05
2.63E+05	1.64E+05	2.19E+05	9.22E+04
2.39E+04	1.46E+04	1.33E+04	1.17E+04
Filtered	2.94E+02	1.89E+03	7.39E+02
4.61E+04	2.41E+04	3.03E+04	2.09E+04
Filtered	2.42E+03	Filtered	Filtered
1.46E+05	4.47E+04	1.66E+05	1.93E+05
1.61E+04	6.66E+03	3.82E+04	3.57E+04
6.29E+04	4.36E+04	1.20E+04	1.59E+04
8.48E+03	9.02E+03	5.96E+03	1.81E+04
8.09E+04	1.59E+05	5.74E+04	5.06E+04
1.97E+05	1.38E+05	1.14E+05	1.27E+05
4.72E+03	1.92E+04	5.23E+03	4.35E+03
5.32E+04	1.45E+04	4.35E+04	4.86E+04
3.91E+03	2.20E+03	5.09E+03	5.41E+03
1.03E+04	2.89E+03	4.72E+03	Filtered
3.25E+03	4.72E+03	5.96E+03	6.36E+03
1.24E+04	3.36E+04	9.00E+03	2.18E+04
Filtered	Filtered	8.97E+03	1.26E+03
2.87E+04	4.02E+03	7.92E+03	4.16E+04
3.70E+05	9.07E+04	4.00E+05	1.35E+05

6.34E+04	2.33E+05	4.92E+04	1.51E+05
2.68E+04	5.10E+03	Filtered	Filtered
1.26E+04	Filtered	1.41E+04	2.25E+04
1.07E+04	1.09E+04	1.75E+04	1.95E+04
1.64E+05	4.11E+04	4.59E+05	2.36E+05
5.35E+03	Filtered	5.72E+03	Filtered
7.42E+04	1.11E+05	5.03E+04	7.18E+04
Filtered	2.11E+04	7.35E+03	4.10E+03
1.67E+03	8.21E+03	2.00E+03	2.93E+03
2.80E+04	3.04E+04	2.10E+04	2.50E+04
2.13E+04	5.61E+03	4.24E+04	2.56E+04
3.58E+04	6.35E+04	4.45E+04	6.38E+04
1.25E+04	4.41E+03	3.18E+04	3.44E+04
Filtered	Filtered	Filtered	5.89E+03
7.14E+04	1.26E+05	5.50E+04	6.85E+04
2.55E+05	3.19E+05	1.41E+05	1.18E+05
Filtered	2.67E+03	Filtered	3.37E+03
1.45E+03	1.26E+03	3.16E+03	1.87E+04
1.07E+04	6.81E+03	4.22E+03	3.41E+03
Filtered	Filtered	2.73E+03	Filtered
3.27E+04	1.03E+04	4.12E+04	4.49E+04
5.21E+04	1.48E+04	4.74E+04	3.80E+04
8.07E+04	4.46E+04	8.46E+04	6.61E+04
3.61E+04	6.07E+04	2.59E+04	2.14E+04
2.13E+04	5.92E+03	1.39E+04	1.78E+04
6.04E+04	1.84E+04	8.40E+04	7.06E+04
3.98E+05	1.19E+05	3.82E+05	1.69E+05
8.04E+03	1.82E+04	4.29E+03	Filtered
7.22E+06	3.22E+07	1.32E+07	1.12E+07
2.24E+04	1.87E+04	4.49E+04	5.63E+04
2.46E+04	4.38E+04	3.06E+04	2.19E+04
3.36E+03	1.43E+04	4.80E+03	5.90E+03
9.69E+04	1.72E+04	2.42E+04	1.08E+04
3.05E+04	8.29E+03	2.94E+04	1.90E+04
5.53E+04	6.96E+04	1.34E+04	3.13E+04
2.62E+04	5.69E+04	2.43E+04	1.41E+04
3.12E+04	7.22E+04	4.41E+04	3.67E+04
7.49E+04	1.67E+05	5.18E+04	6.61E+04
1.82E+05	7.71E+04	2.51E+05	5.04E+04
2.47E+04	2.45E+04	2.88E+04	6.78E+04
1.55E+05	3.41E+04	1.65E+05	8.98E+04
5.82E+04	3.10E+04	5.68E+04	3.21E+04
1.71E+04	2.21E+04	7.52E+03	5.61E+03
1.28E+04	Filtered	1.65E+04	Filtered
1.22E+04	2.49E+04	1.02E+04	9.40E+03
1.36E+04	2.47E+04	1.61E+04	1.25E+04
1.66E+05	8.80E+04	3.06E+05	5.74E+05

4.31E+04	1.58E+04	7.42E+04	3.97E+04
1.59E+05	5.95E+04	2.18E+05	2.24E+05
5.53E+04	2.19E+04	2.76E+04	2.62E+04
1.45E+05	Filtered	4.82E+03	Filtered
1.09E+04	Filtered	6.20E+03	Filtered
1.24E+05	1.77E+05	8.29E+04	6.46E+04
5.36E+03	2.33E+04	7.84E+03	Filtered
Filtered	1.09E+03	Filtered	Filtered
2.84E+05	2.71E+05	2.71E+05	4.16E+05
1.36E+06	5.86E+06	1.16E+06	1.84E+06
Filtered	1.30E+03	Filtered	Filtered
2.04E+04	1.90E+04	1.44E+04	2.12E+04
Filtered	1.13E+03	1.24E+03	Filtered
Filtered	Filtered	Filtered	Filtered
1.32E+05	2.53E+03	6.12E+04	7.02E+03
Filtered	1.10E+04	3.50E+03	4.54E+03
Filtered	3.65E+03	2.57E+03	3.10E+03
5.57E+04	1.04E+05	1.65E+04	2.28E+04
7.63E+02	Filtered	2.01E+03	1.59E+03
9.80E+03	3.24E+04	8.02E+03	1.24E+04
5.93E+04	1.68E+05	6.31E+04	7.26E+04
1.37E+04	5.06E+04	1.59E+04	1.73E+04
1.41E+04	1.28E+05	2.08E+05	4.87E+04
2.62E+03	Filtered	1.59E+04	8.12E+04
1.59E+04	6.53E+03	1.10E+04	7.05E+03
4.37E+04	4.53E+04	2.62E+04	2.57E+04
5.43E+05	2.87E+05	7.86E+05	4.94E+05
1.02E+04	7.26E+03	Filtered	1.00E+04
2.86E+04	5.14E+04	2.15E+04	2.83E+04
1.14E+05	5.27E+05	1.52E+05	3.39E+05
Filtered	1.77E+03	4.12E+03	7.13E+03
Filtered	1.01E+03	1.64E+03	Filtered
2.51E+04	3.85E+04	2.17E+04	2.38E+04
1.04E+05	3.50E+04	1.01E+05	1.23E+05
Filtered	3.99E+03	8.54E+03	1.51E+04
3.13E+04	1.21E+04	4.49E+04	4.25E+04
1.67E+03	2.17E+03	1.28E+03	1.21E+03
1.53E+04	8.44E+03	1.27E+04	5.73E+03
8.30E+04	2.69E+04	3.79E+04	1.09E+04
3.24E+03	1.18E+04	5.31E+03	Filtered
1.35E+05	2.94E+04	4.70E+04	3.50E+04
Filtered	8.47E+03	9.77E+03	1.55E+04
1.28E+03	1.59E+04	1.51E+03	1.25E+03
3.50E+04	5.12E+04	3.29E+04	5.82E+04
Filtered	Filtered	Filtered	Filtered
4.50E+04	3.84E+04	2.04E+04	5.69E+04
7.58E+03	5.13E+03	3.16E+03	4.46E+03

2.59E+04	8.66E+03	9.57E+03	1.58E+04
5.91E+03	5.97E+03	2.52E+03	2.61E+03
1.88E+05	4.98E+05	1.52E+05	2.77E+05
9.56E+04	1.33E+05	5.92E+04	1.04E+05
4.28E+04	1.11E+05	1.32E+04	2.33E+04
1.47E+04	2.69E+03	3.34E+03	1.51E+04
Filtered	1.07E+04	3.97E+03	4.68E+03
1.53E+04	2.11E+04	1.65E+04	1.87E+04
5.26E+03	2.08E+04	8.83E+03	1.73E+04
4.98E+05	4.60E+05	5.41E+05	3.93E+05
5.79E+04	6.65E+04	4.99E+04	5.61E+04
3.30E+04	3.95E+04	1.96E+04	1.16E+04
1.48E+05	4.22E+05	1.15E+05	1.50E+05
5.19E+04	3.44E+04	6.12E+04	6.21E+04
7.07E+03	1.38E+04	5.50E+03	6.39E+03
5.08E+05	1.06E+05	4.84E+05	6.26E+05
Filtered	3.32E+03	Filtered	Filtered
2.15E+05	3.06E+05	2.93E+05	1.41E+05
2.17E+04	4.61E+04	1.85E+04	2.87E+04
6.26E+04	2.41E+04	2.07E+04	1.70E+04
1.68E+04	7.40E+03	2.84E+04	3.59E+04
6.37E+03	2.80E+03	2.07E+03	Filtered
4.38E+04	1.12E+05	3.41E+04	4.46E+04
4.77E+03	9.43E+03	Filtered	3.11E+03
8.67E+03	2.57E+04	8.85E+03	1.08E+04
9.91E+04	3.35E+04	9.41E+04	9.53E+04
1.93E+04	6.01E+03	2.46E+04	1.25E+04
4.15E+03	1.05E+04	4.33E+03	Filtered
2.39E+04	4.20E+04	1.26E+04	3.68E+03
6.32E+03	6.43E+03	1.33E+04	8.96E+03
1.33E+05	1.89E+05	9.73E+04	1.08E+05
6.25E+04	1.56E+05	5.30E+04	7.52E+04
1.75E+04	2.98E+04	1.59E+04	1.73E+04
2.60E+05	5.15E+05	3.36E+05	2.61E+05
6.66E+03	3.13E+04	1.97E+04	1.37E+05
5.30E+04	1.05E+04	4.02E+04	4.25E+04
2.03E+05	2.97E+05	1.40E+05	1.66E+05
2.42E+04	1.44E+04	Filtered	Filtered
Filtered	2.18E+03	Filtered	Filtered
1.84E+04	6.74E+03	1.66E+04	1.54E+04
Filtered	Filtered	Filtered	Filtered
Filtered	1.17E+04	2.20E+03	2.27E+03
1.40E+04	3.33E+03	9.12E+03	1.44E+04
Filtered	3.05E+03	Filtered	Filtered
7.54E+03	5.29E+03	1.07E+04	1.31E+03
8.16E+03	2.37E+04	8.20E+03	8.31E+03
2.81E+05	1.03E+05	2.16E+05	1.44E+05

2.45E+04	2.45E+04	3.25E+04	6.29E+04
9.63E+04	1.92E+05	7.82E+04	1.45E+05
8.43E+04	1.76E+04	1.02E+05	3.61E+04
6.04E+04	2.50E+04	5.37E+04	4.54E+04
4.49E+04	8.07E+04	2.68E+04	2.64E+04
6.38E+03	3.02E+03	8.55E+03	1.11E+04
1.66E+04	2.62E+04	2.02E+04	1.41E+04
5.93E+04	2.43E+04	4.93E+04	4.20E+04
1.74E+05	4.00E+05	1.56E+05	1.36E+05
1.17E+04	9.91E+03	Filtered	Filtered
7.09E+03	1.40E+04	3.90E+03	4.18E+03
2.02E+04	9.42E+04	1.85E+04	3.60E+04
4.50E+04	5.22E+04	4.89E+04	5.78E+04
2.39E+04	5.34E+04	2.16E+04	1.77E+04
2.31E+04	4.82E+04	1.97E+04	2.34E+04
2.57E+05	4.84E+04	3.31E+05	2.26E+05
7.80E+04	1.13E+05	1.80E+05	1.19E+05
1.22E+04	1.58E+03	6.69E+03	1.54E+04
3.48E+04	3.41E+04	3.04E+04	2.74E+04
1.42E+04	1.26E+04	1.14E+04	1.41E+04
6.88E+05	4.33E+04	2.67E+05	3.64E+05
2.50E+04	Filtered	Filtered	Filtered
1.16E+06	3.50E+05	9.32E+05	1.37E+06
Filtered	1.38E+03	7.21E+03	1.55E+04
2.14E+04	8.65E+03	1.32E+04	1.64E+04
1.44E+04	2.20E+04	9.02E+03	1.09E+04
3.58E+04	6.31E+04	2.66E+04	1.76E+04
2.74E+04	4.81E+04	2.60E+04	2.14E+04
6.18E+04	2.67E+04	7.04E+04	6.77E+04
1.36E+04	4.58E+03	8.18E+03	5.86E+03
4.05E+03	9.20E+03	4.63E+03	3.52E+03
1.03E+04	1.06E+04	1.13E+04	2.54E+04
7.02E+05	7.42E+04	3.52E+05	2.38E+05
1.14E+04	2.36E+04	6.83E+03	7.78E+03
5.00E+03	9.67E+03	3.06E+03	Filtered
4.31E+03	1.35E+04	5.54E+03	8.68E+03
1.27E+04	4.40E+04	6.12E+03	1.49E+04
9.27E+03	7.05E+03	5.52E+03	4.42E+03
5.48E+04	1.69E+04	8.31E+04	1.23E+05
5.07E+04	4.11E+04	3.67E+04	1.77E+04
7.62E+04	2.21E+04	9.78E+04	1.66E+05
1.19E+04	2.98E+03	1.67E+04	1.58E+04
5.71E+04	2.14E+04	3.72E+04	3.37E+04
2.41E+05	1.69E+05	1.89E+05	2.48E+05
2.28E+04	6.90E+04	1.86E+04	2.77E+04
2.05E+04	4.70E+04	1.55E+04	2.61E+04
6.63E+04	2.87E+04	3.52E+04	3.64E+04

2.41E+03	6.02E+03	1.85E+04	5.29E+04
3.44E+04	2.20E+04	5.24E+04	2.61E+04
4.11E+04	2.90E+04	3.64E+04	2.19E+04
6.75E+03	6.72E+03	7.98E+03	9.90E+03
4.91E+04	6.24E+04	4.32E+04	2.86E+04
2.28E+04	Filtered	6.19E+03	3.19E+03
Filtered	1.11E+04	1.50E+04	7.13E+03
1.59E+05	4.78E+04	1.57E+05	1.21E+05
1.30E+05	3.31E+04	1.03E+05	1.46E+05
5.86E+04	4.40E+04	8.08E+04	3.50E+04
1.82E+04	3.66E+04	1.50E+04	3.66E+04
3.46E+04	4.63E+04	2.69E+04	6.96E+04
2.82E+04	4.65E+04	2.19E+04	1.75E+04
6.11E+03	6.41E+03	1.57E+03	Filtered
7.81E+03	2.55E+04	5.62E+03	1.04E+04
1.52E+04	2.04E+04	1.25E+04	1.03E+04
1.86E+05	4.51E+05	2.71E+05	2.12E+05
1.90E+04	2.18E+04	8.96E+03	9.20E+03
5.67E+03	1.29E+04	4.74E+03	9.01E+02
8.93E+04	1.45E+04	1.36E+05	4.66E+04
Filtered	1.63E+04	3.52E+04	3.19E+04
1.13E+04	1.49E+03	Filtered	Filtered
5.55E+06	1.36E+06	1.40E+07	2.27E+07
6.80E+04	2.61E+05	1.11E+05	1.15E+05
Filtered	7.70E+03	Filtered	Filtered
6.64E+03	8.92E+03	Filtered	6.83E+02
Filtered	1.14E+04	2.87E+03	Filtered
Filtered	5.19E+03	1.08E+03	Filtered
4.64E+03	4.75E+03	3.40E+03	5.00E+03
1.15E+04	6.96E+04	2.11E+04	4.72E+04
9.32E+02	7.04E+02	Filtered	Filtered
Filtered	9.43E+03	Filtered	Filtered
1.17E+05	4.15E+04	1.11E+05	7.23E+04
1.34E+04	4.53E+04	1.08E+04	9.20E+03
1.85E+05	5.46E+04	1.57E+05	1.15E+05
9.60E+04	3.70E+04	1.20E+05	1.21E+05
3.64E+03	1.29E+04	6.11E+03	6.31E+03
5.03E+04	4.69E+04	1.03E+05	1.20E+05
Filtered	Filtered	Filtered	Filtered
1.07E+04	Filtered	Filtered	Filtered
6.03E+04	9.29E+04	2.96E+04	2.25E+04
Filtered	Filtered	2.56E+04	Filtered
1.02E+05	3.28E+04	5.65E+04	4.50E+04
Filtered	Filtered	1.97E+03	1.90E+03
1.38E+04	7.95E+03	1.03E+04	1.18E+04
5.72E+04	5.02E+04	3.59E+04	3.10E+04
2.02E+04	3.35E+04	1.63E+04	1.42E+04

9.76E+03	2.36E+04	7.71E+03	7.69E+03
Filtered	1.38E+03	1.20E+03	1.91E+03
2.83E+04	5.97E+04	1.79E+04	Filtered
Filtered	3.93E+03	Filtered	Filtered
1.37E+04	3.62E+04	9.58E+03	1.57E+04
1.03E+04	3.26E+04	1.12E+04	1.16E+04
3.00E+03	4.07E+03	3.64E+03	6.58E+03
Filtered	2.61E+04	3.62E+03	1.18E+04
Filtered	1.14E+04	Filtered	2.18E+03
4.42E+04	7.88E+04	4.78E+04	4.82E+04
Filtered	4.95E+03	Filtered	Filtered
5.41E+04	8.66E+04	4.02E+04	2.78E+04
Filtered	1.19E+04	7.34E+03	Filtered
1.83E+04	1.81E+04	1.47E+04	Filtered
3.08E+03	9.08E+03	Filtered	1.89E+03
1.70E+04	7.22E+03	2.46E+04	2.08E+04
Filtered	Filtered	Filtered	Filtered
1.54E+04	2.56E+04	Filtered	Filtered
Filtered	1.30E+04	Filtered	2.65E+03
Filtered	6.57E+03	Filtered	Filtered
1.46E+05	1.47E+05	8.03E+04	7.73E+04
2.04E+04	1.54E+04	8.16E+04	9.97E+04
1.57E+04	3.14E+04	1.49E+04	2.61E+04
9.18E+03	5.64E+03	Filtered	Filtered
3.34E+04	1.00E+05	2.18E+04	2.75E+04
2.60E+04	3.02E+04	1.33E+04	9.64E+03
2.64E+04	1.02E+04	1.09E+04	3.54E+03
Filtered	6.74E+03	Filtered	Filtered
1.10E+04	Filtered	4.27E+03	4.81E+03
1.93E+05	6.29E+05	3.71E+05	5.88E+05
1.16E+04	Filtered	1.57E+04	1.60E+04
8.57E+04	1.05E+05	5.90E+04	5.91E+04
Filtered	5.09E+03	4.23E+03	1.05E+04
6.80E+04	1.36E+05	4.35E+04	5.95E+04
3.42E+04	1.99E+05	4.22E+04	1.13E+04
1.83E+04	1.33E+04	1.14E+04	Filtered
1.38E+05	2.54E+05	1.07E+05	8.67E+04
2.29E+03	1.39E+04	3.03E+03	2.82E+03
4.25E+04	8.53E+04	2.64E+04	2.88E+04
8.77E+03	2.40E+04	9.10E+03	7.28E+03
3.25E+04	8.20E+03	5.24E+03	Filtered
1.23E+04	8.83E+03	2.21E+04	3.82E+04
6.85E+04	6.42E+04	4.69E+04	2.88E+04
3.66E+04	3.86E+04	2.26E+04	2.30E+04
2.68E+04	3.58E+04	1.13E+04	1.96E+04
1.33E+04	1.89E+04	6.62E+03	5.90E+03
1.41E+04	1.81E+04	1.24E+04	Filtered

2.02E+04	6.49E+04	3.17E+04	2.15E+04
1.03E+04	4.28E+04	1.24E+04	1.18E+04
1.57E+05	5.16E+04	6.98E+04	9.02E+04
4.11E+03	3.30E+03	2.29E+03	Filtered
5.15E+03	2.12E+04	4.14E+03	2.38E+03
Filtered	2.11E+03	Filtered	Filtered
1.34E+05	2.05E+05	1.35E+05	8.80E+04
6.28E+04	3.14E+04	9.30E+04	4.17E+04
Filtered	4.12E+03	Filtered	Filtered
1.04E+05	8.19E+04	7.19E+04	9.68E+04
9.60E+04	2.47E+04	4.40E+04	1.00E+05
4.46E+03	1.49E+04	2.16E+03	Filtered
4.51E+04	1.27E+04	3.37E+04	3.45E+04
1.16E+04	2.16E+04	1.26E+04	1.80E+04
Filtered	1.78E+04	Filtered	Filtered
Filtered	3.14E+03	6.85E+02	4.80E+03
5.64E+04	1.72E+05	5.08E+04	6.21E+04
2.19E+03	8.07E+02	1.35E+03	Filtered
1.10E+03	1.39E+03	9.43E+02	Filtered
5.97E+04	1.18E+05	3.83E+04	5.47E+04
Filtered	1.01E+04	2.45E+03	3.23E+03
1.08E+07	1.26E+04	2.08E+04	1.30E+07
6.05E+02	4.71E+03	1.13E+03	Filtered
1.25E+05	7.16E+04	8.86E+04	1.07E+05
2.06E+04	1.17E+04	1.75E+04	3.03E+04
3.39E+04	5.16E+04	2.84E+04	2.72E+04
3.81E+04	6.44E+04	2.29E+04	2.41E+04
8.42E+04	1.13E+05	7.27E+04	5.69E+04
9.41E+03	1.96E+04	6.48E+03	8.46E+03
1.74E+05	1.48E+05	5.59E+04	5.88E+04
7.00E+03	1.94E+04	4.91E+03	9.06E+03
7.23E+05	9.83E+05	5.01E+05	5.53E+05
4.04E+05	6.27E+05	1.50E+05	2.80E+05
4.43E+02	3.14E+03	4.43E+03	4.85E+03
Filtered	1.11E+03	2.32E+03	3.80E+03
4.23E+03	1.06E+04	5.57E+03	2.47E+03
Filtered	2.37E+03	Filtered	Filtered
1.46E+04	1.40E+04	7.21E+03	1.16E+04
Filtered	1.82E+03	Filtered	Filtered
1.09E+04	5.58E+03	6.73E+03	5.82E+03
7.97E+04	2.46E+04	6.42E+04	3.49E+04
1.41E+04	6.97E+03	5.49E+03	Filtered
7.35E+03	1.43E+04	2.78E+03	8.10E+04
1.41E+05	1.23E+05	1.53E+05	1.40E+05
8.77E+03	2.65E+04	6.47E+03	2.74E+03
5.48E+04	1.62E+04	6.09E+04	9.50E+04
9.60E+04	1.27E+04	5.98E+04	6.06E+04

4.24E+04	5.19E+04	1.74E+04	2.40E+04
1.98E+03	5.92E+03	3.08E+03	1.77E+03
Filtered	3.76E+03	Filtered	Filtered
3.92E+04	1.01E+05	3.21E+04	3.72E+04
3.96E+04	3.02E+04	2.77E+04	3.02E+04
2.97E+04	4.38E+04	1.53E+04	7.09E+04
9.04E+04	1.58E+05	6.75E+04	6.36E+04
4.24E+04	7.55E+03	5.84E+04	2.36E+04
3.45E+04	1.27E+05	5.16E+04	5.94E+04
Filtered	1.06E+04	Filtered	Filtered
1.73E+03	8.95E+03	2.85E+03	3.67E+03
1.96E+05	3.32E+03	5.59E+03	4.28E+05
2.21E+04	2.38E+04	1.63E+04	7.68E+03
2.86E+04	6.64E+04	2.18E+04	2.51E+04
Filtered	1.06E+04	Filtered	Filtered
3.44E+04	5.83E+03	Filtered	Filtered
1.02E+04	1.37E+04	Filtered	6.92E+03
Filtered	2.41E+04	2.99E+03	3.01E+03
6.71E+03	1.72E+04	4.87E+03	5.63E+03
7.43E+04	1.28E+04	6.83E+04	1.48E+05
Filtered	1.30E+04	Filtered	4.90E+03
Filtered	1.82E+04	7.75E+03	1.56E+04
2.56E+05	1.20E+05	2.48E+05	2.19E+05
8.83E+04	9.55E+04	1.94E+05	1.14E+05
2.85E+03	4.88E+03	1.07E+03	Filtered
2.30E+04	1.38E+05	2.77E+04	3.46E+04
1.40E+04	2.85E+04	9.66E+03	1.15E+04
1.09E+05	9.11E+04	1.27E+05	9.04E+04
Filtered	8.44E+02	3.16E+02	Filtered
5.71E+04	7.50E+04	7.28E+04	2.93E+04
2.42E+04	5.75E+04	3.96E+04	3.01E+04
5.77E+04	2.27E+04	4.60E+04	6.48E+04
1.22E+05	4.74E+04	1.91E+05	2.13E+05
4.78E+03	4.18E+03	1.20E+04	3.01E+04
2.83E+04	4.20E+04	2.44E+04	3.62E+04
1.40E+05	7.33E+04	1.58E+05	1.40E+05
Filtered	4.72E+03	6.60E+03	1.70E+04
1.51E+05	6.41E+04	2.18E+05	2.30E+05
3.82E+04	8.09E+04	2.36E+04	3.22E+04
5.10E+05	1.77E+05	1.93E+06	1.33E+06
4.36E+03	2.69E+03	3.52E+03	1.43E+04
1.51E+04	1.35E+04	9.51E+03	7.98E+03
1.22E+04	1.13E+04	1.12E+04	4.46E+03
9.89E+03	1.50E+04	2.36E+03	5.77E+03
5.52E+04	9.25E+04	3.29E+04	3.45E+04
1.40E+04	2.69E+03	4.26E+03	6.65E+03
Filtered	2.74E+03	9.67E+02	5.10E+02

1.15E+05	2.79E+04	5.35E+04	1.60E+05
3.54E+03	5.16E+03	2.44E+03	Filtered
3.21E+05	1.56E+05	9.60E+04	1.30E+05
2.80E+04	6.57E+04	3.44E+04	4.21E+04
6.08E+04	1.63E+04	7.91E+04	5.82E+04
6.76E+04	2.37E+04	1.65E+05	1.55E+05
3.13E+05	1.48E+05	4.31E+05	8.30E+05
1.31E+04	8.35E+03	4.80E+04	4.14E+04
Filtered	2.75E+03	8.92E+02	1.60E+03
3.13E+03	1.12E+04	4.35E+03	2.62E+03
1.97E+04	4.96E+04	2.15E+04	2.97E+05
2.58E+04	1.71E+04	3.06E+04	1.26E+04
2.28E+04	2.83E+04	2.28E+04	1.19E+04
3.46E+04	1.90E+04	6.37E+04	3.04E+04
6.21E+04	1.96E+04	1.36E+05	9.63E+04
1.70E+05	8.49E+04	1.34E+05	1.17E+05
1.88E+04	4.79E+04	1.55E+04	1.59E+04
9.49E+04	1.62E+05	8.60E+03	1.07E+05
Filtered	9.93E+02	1.10E+03	1.82E+03
6.89E+04	5.97E+04	8.08E+04	4.92E+04
9.77E+03	2.03E+04	1.24E+04	1.74E+04
4.69E+07	1.65E+07	7.65E+06	5.32E+06
6.04E+04	9.45E+04	5.09E+04	5.23E+04
8.91E+06	3.88E+06	1.60E+07	1.34E+07
Filtered	8.10E+03	1.04E+03	6.14E+03
2.43E+05	4.05E+05	2.17E+05	1.51E+05
8.40E+04	1.27E+05	9.38E+04	7.88E+04
3.15E+06	1.82E+06	2.41E+06	1.63E+06
1.01E+04	5.13E+04	2.68E+04	7.06E+03
2.06E+04	3.70E+04	1.56E+04	2.50E+04
1.09E+03	1.99E+04	1.08E+03	2.98E+03
2.23E+05	3.93E+05	1.81E+05	1.65E+05
1.98E+05	1.72E+05	1.36E+05	7.24E+04
9.81E+03	1.66E+04	1.24E+04	7.23E+03
2.04E+04	2.48E+04	1.12E+04	1.74E+04
4.82E+03	1.59E+04	2.84E+03	Filtered
8.26E+04	1.90E+05	3.81E+04	4.63E+04
1.06E+05	2.43E+05	9.56E+04	7.95E+04
7.97E+04	5.46E+04	2.70E+04	2.53E+04
8.13E+03	2.69E+04	7.29E+03	1.05E+04
7.39E+03	1.94E+04	9.52E+03	9.95E+03
2.35E+05	3.45E+05	1.62E+05	1.28E+05
1.36E+04	2.79E+04	1.47E+04	8.88E+03
5.05E+04	4.48E+04	2.85E+04	2.25E+04
3.11E+04	3.91E+04	2.70E+04	1.54E+04
Filtered	4.73E+03	2.06E+03	2.30E+03
5.75E+04	8.35E+04	2.71E+04	3.76E+04

6.93E+03	2.80E+04	1.19E+04	8.80E+03
4.48E+04	4.32E+04	3.11E+04	Filtered
1.71E+04	8.93E+04	4.16E+04	2.32E+04
3.88E+04	9.02E+04	5.52E+04	3.86E+04
3.26E+05	4.39E+05	2.08E+05	8.49E+04
1.69E+04	7.67E+03	8.98E+03	4.63E+03
1.85E+05	9.42E+04	1.29E+05	1.18E+05
1.00E+04	1.48E+04	4.23E+03	9.16E+03
1.13E+06	6.61E+05	2.10E+06	1.09E+06
1.19E+06	1.42E+06	9.65E+05	1.13E+06
3.50E+03	9.23E+03	2.94E+03	2.03E+03
4.38E+05	1.98E+05	4.23E+05	6.39E+05
2.39E+04	1.24E+04	2.01E+04	8.73E+03
1.29E+05	1.57E+05	8.47E+04	9.16E+04
2.19E+04	3.74E+04	1.25E+04	1.53E+04
8.70E+04	1.39E+05	7.23E+04	4.27E+04
1.73E+03	1.75E+04	4.01E+03	9.50E+03
Filtered	1.17E+04	2.35E+03	4.83E+03
4.84E+03	1.70E+04	4.78E+03	2.75E+03
3.54E+04	4.16E+04	2.32E+04	Filtered
Filtered	2.98E+04	Filtered	2.49E+03
1.48E+05	2.69E+05	1.27E+05	1.03E+05
4.61E+04	2.28E+04	5.32E+04	Filtered
4.42E+04	3.06E+04	1.64E+04	1.34E+04
4.93E+04	6.35E+04	1.16E+04	8.23E+03
1.35E+04	6.34E+04	Filtered	1.19E+04
6.21E+03	1.22E+04	6.82E+03	4.55E+03
2.06E+04	Filtered	Filtered	Filtered
3.53E+04	2.70E+04	6.14E+04	1.95E+04
1.09E+04	3.10E+04	1.87E+04	2.47E+04
5.18E+03	1.58E+04	4.65E+03	4.37E+03
1.46E+04	1.85E+04	Filtered	Filtered
3.34E+05	5.33E+05	2.90E+05	2.26E+05
Filtered	3.26E+03	Filtered	Filtered
1.30E+04	8.44E+03	1.71E+03	3.24E+03
Filtered	2.75E+03	3.92E+03	2.01E+03
3.50E+04	3.68E+04	2.95E+04	1.06E+04
4.63E+04	9.72E+04	2.39E+04	Filtered
1.65E+04	1.01E+04	1.45E+04	Filtered
8.70E+04	8.60E+04	6.19E+04	4.19E+04
6.16E+04	5.67E+04	4.73E+04	4.05E+04
7.82E+03	1.55E+04	4.81E+03	4.06E+03
1.03E+05	1.41E+05	7.41E+04	8.89E+04
Filtered	6.81E+03	1.42E+03	Filtered
7.72E+03	1.62E+04	1.58E+04	8.76E+03
1.82E+05	2.04E+05	1.64E+05	1.80E+05
1.58E+05	1.64E+05	1.19E+05	1.68E+05

4.80E+04	1.38E+04	7.70E+03	2.90E+03
1.41E+04	2.44E+04	6.67E+03	3.47E+03
1.50E+03	9.92E+03	Filtered	Filtered
2.53E+04	2.37E+04	1.63E+04	4.37E+03
1.46E+05	2.66E+05	1.02E+05	8.37E+04
3.80E+04	1.13E+05	5.68E+04	4.25E+04
3.68E+04	2.88E+04	2.04E+04	1.85E+04
1.65E+05	3.23E+05	1.55E+05	1.55E+05
3.31E+03	7.86E+03	2.46E+03	1.54E+03
5.74E+04	4.23E+04	2.27E+04	3.39E+04
6.24E+04	8.29E+04	8.06E+04	7.46E+04
2.87E+05	3.60E+05	1.96E+05	1.66E+05
2.12E+04	4.01E+04	1.88E+04	1.22E+04
Filtered	2.58E+03	Filtered	Filtered
1.74E+04	1.77E+04	1.41E+04	1.03E+04
3.85E+04	4.68E+04	4.18E+04	5.79E+04
2.38E+04	1.99E+04	3.14E+04	Filtered
2.75E+04	6.43E+04	2.14E+04	2.78E+04
1.50E+04	2.39E+04	1.25E+04	1.00E+04
6.41E+03	3.29E+03	8.24E+03	1.33E+04
4.36E+05	8.39E+05	3.33E+05	2.99E+05
8.15E+05	3.92E+05	1.36E+05	2.70E+05
2.21E+04	6.10E+04	1.37E+04	4.13E+04
1.19E+05	1.79E+05	7.55E+04	6.11E+04
5.20E+05	1.23E+05	2.02E+05	4.79E+04
3.94E+05	4.66E+04	2.24E+05	8.31E+04
5.66E+03	1.98E+04	7.34E+03	Filtered
4.97E+05	2.44E+04	3.48E+05	1.02E+05
Filtered	1.58E+04	1.10E+04	1.18E+04
2.69E+05	4.93E+04	3.07E+05	3.75E+05
3.44E+03	6.43E+03	2.62E+03	2.28E+03
4.49E+04	4.01E+04	1.82E+04	1.30E+04
1.16E+05	2.03E+04	2.46E+04	4.42E+04
2.50E+05	2.00E+05	1.65E+05	8.38E+04
9.67E+03	7.80E+03	7.26E+03	1.34E+04
Filtered	1.97E+02	1.03E+03	2.53E+03
Filtered	3.97E+03	Filtered	Filtered
3.09E+03	3.71E+03	8.14E+03	8.09E+03
4.30E+05	2.78E+04	2.57E+04	5.20E+04
3.64E+03	Filtered	Filtered	Filtered
1.90E+07	3.20E+06	7.33E+06	5.68E+06
6.33E+04	1.29E+04	2.42E+04	3.75E+03
Filtered	4.23E+03	6.27E+03	Filtered
3.27E+05	1.27E+05	1.96E+05	2.69E+05
4.02E+04	Filtered	Filtered	Filtered
3.07E+05	5.34E+05	1.63E+05	1.91E+05
7.91E+04	9.23E+03	6.78E+04	8.02E+04

9.13E+03	3.68E+03	1.56E+04	1.69E+04
Filtered	3.38E+03	1.08E+03	Filtered
2.36E+04	2.66E+04	1.21E+04	1.76E+04
5.72E+03	Filtered	4.84E+03	2.46E+03
1.63E+04	Filtered	4.70E+03	Filtered
2.44E+04	4.38E+04	3.34E+04	3.09E+04
2.03E+06	7.21E+05	6.08E+06	6.96E+06
Filtered	Filtered	Filtered	3.15E+03
8.89E+05	2.10E+05	7.85E+05	1.05E+06
3.27E+04	1.92E+04	7.19E+04	1.04E+05
4.15E+04	2.14E+04	2.98E+04	1.70E+04
9.93E+04	4.74E+04	4.51E+04	1.54E+04
5.71E+03	2.11E+04	3.83E+03	3.52E+03
1.87E+04	3.17E+04	1.02E+04	8.33E+03
5.63E+05	1.12E+06	3.39E+05	3.45E+05
Filtered	9.18E+03	8.87E+03	4.10E+03
6.83E+03	2.56E+04	5.30E+03	1.18E+04
1.22E+05	1.18E+05	1.73E+05	3.85E+05
3.69E+04	2.35E+04	2.18E+04	2.42E+04
2.99E+04	4.80E+04	2.52E+04	2.22E+04
6.56E+03	1.09E+04	9.69E+03	8.04E+03
1.27E+03	1.92E+03	2.18E+03	Filtered
8.86E+04	2.09E+04	7.75E+04	1.33E+05
1.43E+05	2.89E+04	4.71E+04	2.31E+05
Filtered	1.45E+04	1.21E+04	1.43E+04
4.88E+04	1.99E+04	1.09E+04	1.38E+04
Filtered	8.78E+02	1.98E+04	1.16E+04
9.59E+03	1.17E+04	1.23E+04	1.34E+04
6.22E+04	2.89E+04	8.32E+04	1.51E+05
2.65E+04	2.91E+04	3.99E+03	3.02E+03
1.54E+05	4.11E+04	2.84E+05	1.62E+05
1.82E+04	2.84E+04	1.01E+04	7.10E+03
1.40E+04	4.15E+03	6.77E+03	6.20E+03
1.78E+05	4.87E+04	1.59E+05	6.54E+04
2.35E+04	1.17E+04	2.02E+04	3.71E+04
1.03E+05	4.46E+04	9.86E+04	4.77E+04
1.88E+03	7.12E+03	Filtered	Filtered
2.57E+06	5.41E+05	1.61E+06	1.28E+06
2.83E+04	3.29E+03	1.74E+04	3.47E+04
1.09E+05	5.09E+04	1.52E+05	6.16E+04
7.88E+03	4.91E+03	3.75E+03	4.07E+03
3.31E+04	1.08E+05	5.51E+04	1.97E+04
Filtered	4.09E+03	2.76E+03	Filtered
3.64E+03	Filtered	1.76E+03	3.66E+03
2.47E+04	8.26E+03	2.95E+04	2.55E+04
8.49E+04	1.38E+04	7.55E+04	5.19E+04
1.06E+05	2.16E+05	7.56E+04	1.01E+05

1.12E+04	6.69E+03	1.89E+04	2.42E+04
1.17E+03	2.30E+03	8.30E+02	Filtered
3.28E+04	3.41E+04	2.00E+04	1.68E+04
1.90E+03	8.18E+03	1.95E+03	2.20E+03
Filtered	1.33E+03	2.82E+03	3.09E+03
4.61E+04	2.18E+04	3.79E+04	6.92E+04
2.22E+04	9.58E+03	1.87E+03	Filtered
1.13E+04	2.88E+04	6.86E+03	8.75E+03
5.75E+03	1.54E+04	1.46E+04	1.03E+04
2.30E+04	3.52E+04	1.41E+04	2.75E+04
1.53E+04	9.19E+03	3.77E+04	3.47E+04
5.22E+04	8.13E+04	3.28E+04	5.55E+04
1.04E+05	2.95E+05	1.21E+05	8.47E+04
6.39E+05	1.02E+06	4.85E+05	4.52E+05
4.41E+03	2.52E+03	1.46E+03	1.78E+03
3.50E+04	1.10E+04	1.02E+05	1.27E+05
1.62E+05	5.58E+04	3.30E+05	2.48E+05
7.53E+05	3.14E+05	1.59E+06	1.20E+06
Filtered	8.37E+03	Filtered	1.29E+03
3.74E+03	2.63E+03	9.83E+03	Filtered
8.26E+04	2.23E+04	7.89E+04	1.03E+05
1.43E+04	1.73E+04	9.26E+03	2.05E+03
6.21E+04	1.81E+04	5.71E+04	5.56E+04
2.37E+04	7.43E+04	3.71E+04	2.89E+04
2.21E+04	1.69E+03	1.51E+03	Filtered
4.07E+04	3.59E+04	1.07E+04	1.38E+04
2.80E+04	1.70E+04	1.89E+04	1.86E+04
2.46E+05	1.83E+05	2.21E+05	1.63E+05
1.59E+06	1.97E+06	1.84E+06	2.40E+06
1.40E+04	7.42E+02	1.67E+04	3.78E+04
1.47E+04	3.51E+03	9.00E+03	9.32E+03
Filtered	Filtered	4.64E+03	2.91E+03
1.07E+04	1.70E+05	6.29E+04	6.83E+04
7.61E+04	1.91E+05	4.73E+04	5.81E+04
1.49E+04	3.13E+03	4.19E+03	1.75E+03
2.46E+04	1.84E+04	2.97E+04	2.70E+04
5.97E+03	9.99E+03	6.18E+03	6.58E+03
Filtered	Filtered	1.42E+03	2.24E+03
4.41E+03	1.43E+03	5.56E+03	5.39E+03
Filtered	1.46E+04	2.69E+03	Filtered
8.75E+03	3.78E+04	5.58E+03	6.51E+03
7.71E+04	2.35E+02	7.70E+04	3.24E+03
3.25E+04	1.06E+04	4.18E+04	1.77E+04
1.29E+04	2.24E+04	9.40E+03	9.01E+03
3.64E+04	4.44E+04	2.01E+04	1.79E+04
3.67E+04	1.36E+04	2.94E+04	1.76E+04
7.00E+05	3.20E+05	8.31E+05	1.52E+06

3.48E+03	1.31E+04	Filtered	Filtered
8.60E+04	2.40E+05	7.92E+04	1.23E+05
7.66E+04	1.35E+04	7.65E+04	3.49E+04
1.90E+04	Filtered	2.83E+04	6.23E+02
Filtered	6.85E+03	Filtered	Filtered
1.67E+06	5.18E+05	3.06E+06	2.42E+06
3.02E+04	4.69E+04	4.12E+04	4.77E+04
1.35E+04	1.98E+04	1.71E+04	8.51E+03
Filtered	1.27E+04	3.15E+03	Filtered
3.92E+03	Filtered	5.01E+03	6.71E+03
5.02E+03	2.73E+03	2.09E+03	1.71E+03
8.75E+03	1.67E+04	Filtered	Filtered
Filtered	1.44E+04	Filtered	2.46E+04
7.01E+03	Filtered	3.26E+02	1.28E+03
2.11E+04	2.70E+04	1.50E+04	7.48E+03
8.02E+03	1.76E+04	3.88E+03	4.03E+03
1.89E+04	2.87E+04	6.52E+03	1.76E+04
3.47E+03	5.01E+03	4.76E+03	4.42E+03
Filtered	5.82E+03	Filtered	1.04E+03
1.65E+05	7.37E+04	2.70E+05	3.69E+05
9.17E+04	8.74E+04	6.17E+04	4.95E+04
5.31E+03	5.54E+03	6.14E+03	Filtered
3.62E+03	1.65E+04	2.59E+03	Filtered
3.16E+03	4.85E+03	7.81E+02	3.70E+03
5.14E+05	2.63E+02	1.75E+05	Filtered
5.66E+03	8.70E+03	4.93E+03	7.26E+03
Filtered	Filtered	1.35E+03	5.24E+03
1.35E+04	1.04E+04	1.81E+04	3.01E+04
1.02E+05	4.81E+05	1.90E+05	2.65E+05
2.26E+03	4.09E+03	8.15E+02	4.81E+02
9.30E+04	1.56E+05	7.71E+04	6.79E+04
8.57E+03	1.47E+04	1.04E+04	1.16E+04
1.83E+04	3.91E+03	3.67E+04	3.17E+04
3.46E+04	7.87E+04	3.63E+04	3.86E+04
Filtered	8.89E+02	Filtered	3.77E+03
9.43E+03	4.21E+03	1.01E+04	4.81E+03
8.54E+04	3.18E+05	1.18E+05	1.99E+05
4.41E+03	1.46E+04	Filtered	Filtered
5.08E+05	1.09E+05	3.92E+05	3.98E+05
1.68E+05	2.80E+05	1.18E+05	3.08E+05
6.10E+05	3.96E+05	3.25E+05	6.62E+05
7.78E+03	1.59E+04	5.71E+03	6.18E+03
1.04E+05	4.65E+04	9.46E+04	1.39E+05
3.28E+03	4.56E+03	2.31E+03	3.26E+03
2.25E+04	2.17E+04	1.56E+04	1.22E+04
7.14E+04	3.62E+04	3.78E+04	3.68E+04
1.05E+04	2.29E+04	2.29E+04	1.14E+04

9.17E+02	5.17E+03	2.66E+03	Filtered
1.71E+04	3.96E+04	2.77E+04	2.35E+04
5.95E+03	7.60E+03	5.83E+03	Filtered
1.05E+04	6.40E+03	5.09E+03	6.41E+03
1.11E+04	5.82E+03	1.79E+04	1.32E+04
2.76E+04	1.40E+04	3.70E+04	3.27E+04
2.94E+04	3.32E+04	4.27E+04	1.66E+04
4.53E+03	1.42E+04	4.37E+03	6.74E+03
6.15E+04	3.97E+04	3.14E+04	4.72E+04
2.42E+04	5.27E+03	1.77E+04	3.37E+03
5.85E+04	1.98E+05	1.32E+05	4.87E+04
Filtered	Filtered	Filtered	1.69E+04
3.96E+03	3.88E+03	1.09E+04	2.74E+03
3.91E+04	2.04E+04	3.18E+04	2.95E+04
8.06E+04	3.08E+04	6.70E+04	5.64E+04
1.95E+04	1.48E+04	2.44E+04	1.60E+04
4.24E+03	5.72E+03	Filtered	Filtered
1.28E+03	2.35E+03	8.08E+02	1.54E+03
Filtered	3.90E+02	Filtered	1.37E+03
1.67E+04	6.06E+03	8.18E+03	1.62E+04
1.30E+04	3.81E+04	9.30E+03	1.02E+04
Filtered	6.44E+03	Filtered	Filtered
5.25E+04	Filtered	3.09E+04	5.45E+04
Filtered	6.46E+03	7.54E+02	2.57E+02
2.07E+04	5.17E+04	1.18E+04	2.60E+04
1.70E+05	2.75E+04	5.18E+05	8.01E+05
4.11E+04	7.82E+04	2.87E+04	2.76E+04
4.54E+04	2.43E+04	4.68E+04	3.02E+04
9.33E+03	7.78E+03	6.56E+03	6.11E+03
4.44E+03	1.16E+04	Filtered	Filtered
9.82E+02	1.31E+03	2.54E+04	5.69E+03
3.91E+04	2.48E+04	4.90E+04	9.60E+04
1.09E+03	2.71E+03	2.05E+03	Filtered
5.67E+04	9.82E+03	2.90E+04	2.05E+05
6.15E+04	2.56E+04	5.98E+04	3.23E+04
3.64E+06	7.33E+05	2.63E+06	1.68E+06
2.58E+04	1.76E+04	4.58E+04	2.75E+04
Filtered	Filtered	Filtered	Filtered
2.82E+05	3.64E+04	1.34E+05	2.16E+05
Filtered	3.43E+03	4.29E+03	1.63E+03
3.63E+03	3.45E+03	2.07E+03	2.31E+03
Filtered	1.05E+04	3.08E+03	Filtered
1.01E+04	1.06E+04	6.45E+03	5.17E+03
3.19E+04	3.47E+04	5.01E+04	4.57E+04
1.03E+05	3.29E+04	1.07E+05	1.63E+05
4.85E+03	3.93E+03	5.61E+03	5.06E+03
9.89E+04	1.42E+05	1.22E+05	6.67E+04

6.78E+04	7.02E+04	3.34E+04	4.55E+04
2.21E+05	4.66E+04	8.78E+04	1.18E+05
9.91E+03	2.04E+04	8.19E+03	7.59E+03
4.95E+04	3.32E+04	6.05E+04	9.05E+04
5.88E+03	Filtered	9.61E+03	4.84E+03
5.32E+03	9.68E+03	2.83E+03	3.73E+03
8.57E+03	1.40E+04	5.47E+03	5.28E+03
Filtered	7.22E+03	Filtered	Filtered
Filtered	9.89E+03	5.39E+03	Filtered
2.19E+04	3.62E+03	9.75E+03	9.40E+03
3.69E+04	4.66E+04	7.25E+04	1.01E+05
Filtered	3.54E+03	1.60E+03	Filtered
1.71E+03	6.10E+03	2.05E+03	1.67E+03
1.52E+03	4.13E+03	2.21E+02	1.62E+03
6.57E+03	1.98E+04	1.25E+03	Filtered
5.68E+03	1.91E+04	6.96E+03	9.09E+03
Filtered	1.43E+03	Filtered	Filtered
3.89E+04	1.51E+04	3.98E+04	3.67E+04
Filtered	4.73E+04	2.15E+04	1.40E+04
4.97E+04	8.88E+03	4.48E+04	3.90E+04
3.24E+04	5.13E+04	4.49E+04	3.90E+04
1.20E+05	1.80E+05	9.29E+04	6.69E+04
Filtered	2.56E+04	4.57E+03	Filtered
6.90E+03	5.48E+04	9.33E+03	8.13E+03
4.37E+04	2.03E+04	4.88E+04	3.72E+04
2.22E+04	3.63E+04	1.33E+04	1.45E+04
Filtered	8.89E+02	Filtered	Filtered
6.39E+03	9.20E+03	8.21E+04	2.88E+04
8.75E+04	1.57E+04	9.95E+04	1.23E+05
1.46E+04	Filtered	5.00E+03	2.14E+04
3.58E+03	6.33E+03	6.33E+03	4.17E+03
2.09E+03	2.08E+04	3.31E+03	3.14E+03
5.66E+03	1.61E+04	8.73E+03	6.90E+03
1.46E+05	5.82E+04	2.14E+05	1.96E+05
Filtered	Filtered	2.96E+03	Filtered
4.64E+05	9.60E+04	3.86E+05	4.63E+05
1.38E+04	2.19E+04	1.04E+04	1.59E+04
1.65E+04	2.06E+04	1.13E+04	2.06E+04
7.93E+04	7.69E+04	1.47E+05	7.36E+04
4.74E+03	2.82E+03	1.43E+04	1.34E+04
3.42E+04	1.40E+03	3.23E+04	4.66E+04
4.50E+04	1.48E+04	3.61E+04	Filtered
5.00E+02	3.47E+04	1.33E+04	1.01E+04
1.48E+06	5.52E+05	1.37E+06	1.01E+06
Filtered	4.22E+03	Filtered	Filtered
8.61E+04	3.66E+04	1.26E+05	2.15E+05
Filtered	1.17E+04	Filtered	Filtered

Filtered	9.17E+03	4.00E+03	8.07E+03
Filtered	6.72E+03	1.84E+03	Filtered
3.60E+04	1.67E+04	2.58E+03	1.10E+04
3.23E+05	6.23E+04	1.70E+05	7.05E+05
3.03E+03	1.20E+05	3.59E+04	1.30E+04
2.43E+04	3.15E+03	1.52E+03	4.50E+03
Filtered	Filtered	Filtered	8.81E+04
1.45E+04	8.09E+03	1.24E+04	2.32E+04
6.24E+03	Filtered	5.65E+03	5.96E+03
1.45E+04	1.61E+03	4.75E+03	1.21E+04
6.46E+05	1.61E+06	1.10E+06	8.96E+05
2.44E+03	2.09E+03	8.72E+03	6.08E+03
1.83E+03	Filtered	1.08E+04	1.08E+04
1.33E+04	1.79E+04	1.82E+04	6.89E+03
8.49E+03	1.19E+04	7.00E+03	1.31E+04
5.71E+05	4.57E+05	9.65E+05	1.18E+06
3.56E+03	1.02E+04	Filtered	4.29E+03
5.99E+03	3.57E+03	1.17E+04	1.27E+04
1.05E+04	Filtered	Filtered	5.44E+03
1.16E+03	Filtered	1.24E+03	Filtered
2.68E+04	6.13E+03	3.81E+04	5.02E+04
1.11E+04	4.08E+03	5.02E+03	2.26E+03
3.22E+05	1.34E+05	4.04E+05	3.07E+05
4.89E+04	5.79E+04	4.04E+04	3.77E+04
8.03E+03	2.86E+04	8.91E+03	9.35E+03
1.54E+03	9.05E+02	2.75E+03	1.52E+03
1.00E+04	1.59E+04	8.30E+03	7.84E+03
5.22E+03	1.05E+04	Filtered	Filtered
Filtered	4.24E+03	8.65E+02	1.03E+03
3.86E+04	4.91E+03	Filtered	5.84E+03
Filtered	7.54E+03	Filtered	Filtered
1.17E+04	6.69E+03	1.95E+04	1.83E+04
2.54E+04	1.66E+04	9.78E+03	1.88E+04
1.11E+04	3.90E+04	8.58E+03	2.67E+04
1.55E+03	Filtered	2.45E+03	Filtered
3.45E+03	1.69E+04	4.72E+04	2.22E+03
1.53E+04	6.62E+03	1.33E+04	Filtered
1.83E+04	7.13E+03	4.40E+04	5.27E+04
3.98E+03	6.89E+02	1.14E+03	8.82E+02
Filtered	Filtered	1.26E+03	1.12E+03
6.54E+03	1.52E+04	3.89E+03	Filtered
4.97E+03	2.69E+04	5.39E+03	4.59E+03
1.82E+03	Filtered	Filtered	Filtered
1.59E+04	1.03E+05	3.09E+04	6.20E+04
6.33E+03	1.07E+04	Filtered	Filtered
5.47E+04	2.25E+04	1.64E+05	1.90E+05
6.24E+03	4.46E+03	2.42E+04	3.68E+03

1.51E+03	Filtered	5.12E+03	5.43E+02
Filtered	3.88E+03	Filtered	Filtered
3.28E+05	5.32E+05	2.83E+05	3.56E+05
1.80E+04	5.74E+03	1.57E+04	1.02E+04
2.03E+04	7.88E+03	2.04E+04	1.03E+04
5.73E+04	1.48E+04	3.59E+04	7.60E+04
6.01E+03	Filtered	Filtered	8.33E+03
3.29E+04	1.06E+05	7.97E+04	9.48E+04
2.36E+04	4.03E+04	1.44E+04	1.84E+04
Filtered	Filtered	7.05E+02	1.60E+03
2.64E+04	2.00E+04	1.69E+04	2.04E+04
9.86E+03	7.71E+03	1.97E+04	1.15E+04
4.55E+05	9.94E+04	4.82E+05	1.97E+05
2.03E+04	8.10E+03	1.41E+04	1.43E+04
Filtered	8.58E+03	1.23E+03	1.78E+03
2.09E+04	5.84E+03	Filtered	2.26E+03
2.53E+03	8.50E+03	2.37E+03	4.41E+03
1.20E+04	Filtered	1.43E+04	1.35E+04
7.56E+03	4.18E+03	2.45E+03	3.15E+04
1.76E+04	8.17E+02	8.24E+03	2.92E+04
5.13E+03	1.42E+04	6.42E+03	5.32E+03
1.09E+05	9.04E+04	9.30E+04	8.80E+04
Filtered	3.88E+04	Filtered	9.43E+03
6.41E+03	5.60E+03	3.39E+03	9.76E+03
1.26E+04	3.83E+04	1.88E+04	2.61E+04
1.17E+05	2.03E+04	1.09E+05	5.85E+05
1.81E+04	2.55E+04	3.06E+04	1.16E+05
Filtered	7.13E+03	Filtered	Filtered
5.41E+03	3.66E+04	7.77E+03	1.40E+04
7.99E+03	5.86E+03	8.81E+03	7.40E+03
1.17E+04	Filtered	Filtered	3.48E+04
2.21E+04	6.90E+03	2.35E+04	8.52E+03
4.19E+03	1.48E+03	8.00E+03	9.84E+03
3.20E+05	5.08E+04	3.38E+05	2.58E+05
2.04E+06	7.17E+05	1.49E+06	1.68E+06
1.22E+05	3.79E+04	1.00E+05	9.67E+04
Filtered	6.99E+03	Filtered	Filtered
1.00E+06	3.65E+05	1.22E+06	1.84E+06
7.44E+03	1.44E+04	7.96E+03	3.61E+03
8.95E+03	2.22E+04	3.92E+03	6.96E+03
Filtered	4.86E+02	Filtered	Filtered
2.37E+04	4.09E+03	5.24E+03	7.87E+04
6.83E+04	1.79E+04	1.60E+04	1.14E+04
1.63E+03	2.93E+03	8.08E+03	1.36E+04
3.26E+03	6.03E+03	1.45E+04	9.22E+03
Filtered	Filtered	2.61E+03	1.02E+03
Filtered	8.46E+03	1.18E+03	Filtered

3.98E+03	4.56E+02	4.68E+03	1.15E+04
3.42E+04	1.41E+04	5.90E+04	4.24E+04
2.20E+05	8.48E+04	1.21E+05	2.08E+05
2.85E+03	9.02E+03	2.47E+03	7.58E+04
7.65E+04	9.72E+03	2.95E+04	6.28E+04
4.95E+03	Filtered	3.58E+03	6.56E+03
7.86E+03	7.73E+03	7.07E+03	3.47E+03
1.90E+04	2.30E+03	1.04E+04	4.42E+03
Filtered	2.33E+03	4.14E+03	2.79E+03
2.63E+03	2.83E+03	Filtered	Filtered
Filtered	Filtered	Filtered	Filtered
1.22E+05	2.05E+05	1.23E+05	7.55E+04
2.83E+04	1.26E+04	6.23E+04	6.80E+04
1.20E+05	3.95E+04	1.30E+05	1.03E+05
5.30E+03	5.19E+03	9.33E+03	2.30E+04
5.05E+04	2.04E+04	7.92E+04	6.34E+04
1.48E+05	4.47E+04	3.42E+05	3.02E+05
7.90E+03	6.38E+04	2.71E+04	4.66E+04
Filtered	1.38E+04	Filtered	Filtered
1.96E+05	7.23E+04	3.43E+05	3.07E+05
2.98E+04	9.12E+04	4.88E+04	4.07E+04
Filtered	Filtered	Filtered	9.83E+02
Filtered	Filtered	6.55E+03	1.47E+04
9.51E+03	1.87E+04	4.63E+03	2.89E+05
6.78E+04	2.40E+04	5.40E+04	6.52E+04
1.06E+05	2.63E+04	1.25E+05	1.42E+05
1.30E+04	5.46E+03	1.18E+04	1.08E+04
9.58E+03	1.99E+04	Filtered	3.99E+03
Filtered	Filtered	7.22E+03	1.01E+04
1.41E+04	Filtered	3.40E+03	Filtered
3.93E+04	2.24E+04	3.19E+04	2.43E+04
2.64E+04	1.65E+05	2.05E+04	5.06E+04
6.29E+03	1.90E+03	5.21E+03	Filtered
6.58E+04	2.51E+05	7.29E+04	1.05E+05
2.93E+03	5.03E+03	1.30E+04	1.62E+04
1.42E+05	2.72E+04	1.96E+05	1.77E+05
4.40E+04	6.72E+04	2.76E+04	3.21E+04
1.62E+03	Filtered	Filtered	Filtered
2.84E+04	1.93E+03	4.67E+03	Filtered
7.39E+03	Filtered	3.27E+04	3.11E+04
2.50E+05	1.02E+05	2.30E+05	4.50E+05
4.69E+03	1.47E+04	3.54E+03	2.02E+03
Filtered	3.04E+04	Filtered	Filtered
1.11E+04	1.27E+04	Filtered	Filtered
1.86E+04	2.85E+04	9.38E+03	1.47E+04
Filtered	8.75E+03	Filtered	Filtered
3.32E+03	8.64E+03	4.81E+03	3.62E+03

2.23E+05	8.69E+04	1.71E+05	1.94E+05
8.64E+03	8.49E+03	4.71E+03	4.20E+03
2.27E+04	1.17E+04	3.69E+04	5.27E+04
8.45E+02	4.24E+03	7.89E+02	7.81E+02
1.18E+04	4.21E+04	1.04E+04	1.29E+04
7.82E+03	4.23E+02	Filtered	Filtered
Filtered	1.42E+03	Filtered	Filtered
Filtered	Filtered	Filtered	Filtered
1.25E+05	2.89E+05	6.76E+04	5.57E+04
7.55E+05	7.43E+05	3.14E+06	1.11E+06
1.56E+05	3.55E+04	2.43E+05	2.18E+05
6.49E+03	3.06E+03	3.90E+03	7.34E+03
Filtered	1.46E+03	2.42E+03	5.70E+03
2.44E+03	2.15E+03	1.89E+03	Filtered
1.13E+04	Filtered	1.12E+04	1.47E+04
7.05E+03	2.86E+03	8.77E+03	1.03E+04
4.54E+04	1.87E+04	4.80E+04	3.24E+04
1.39E+04	2.84E+04	1.92E+04	1.27E+04
1.28E+04	9.63E+03	7.92E+03	6.21E+03
6.76E+04	2.67E+04	8.51E+04	8.49E+04
1.09E+04	3.41E+03	1.40E+04	1.61E+04
Filtered	8.13E+03	2.03E+03	Filtered
Filtered	Filtered	5.54E+03	2.00E+03
1.39E+04	9.34E+03	1.83E+04	1.90E+04
1.40E+05	5.68E+04	9.86E+04	1.01E+05
1.27E+04	3.83E+03	4.75E+03	3.19E+03
1.66E+04	1.13E+04	1.38E+04	1.60E+04
6.76E+04	Filtered	1.22E+05	4.10E+04
3.18E+04	3.04E+05	3.77E+04	4.26E+04
Filtered	1.57E+03	Filtered	1.02E+03
6.96E+03	1.40E+04	5.46E+03	5.79E+03
1.94E+04	9.77E+03	1.83E+04	1.07E+04
1.47E+04	2.03E+04	5.62E+03	1.41E+04
7.81E+03	4.25E+03	5.93E+03	1.76E+04
2.43E+05	5.76E+04	2.29E+05	4.39E+05
2.52E+03	1.56E+04	4.08E+03	Filtered
4.79E+04	8.70E+03	1.92E+04	3.46E+04
1.07E+04	1.57E+04	5.03E+03	7.20E+03
1.35E+04	4.62E+03	1.32E+04	9.42E+03
Filtered	2.30E+03	Filtered	Filtered
2.46E+04	4.62E+03	1.93E+04	5.51E+03
4.45E+04	1.74E+04	2.62E+04	4.47E+04
5.54E+03	7.17E+05	1.06E+04	2.70E+05
Filtered	9.87E+03	Filtered	Filtered
1.12E+05	3.56E+04	1.82E+05	1.75E+05
2.17E+04	2.25E+04	7.13E+03	Filtered
2.42E+03	5.86E+03	Filtered	Filtered

Filtered	Filtered	Filtered	Filtered
9.62E+04	4.74E+04	5.32E+04	5.80E+04
Filtered	2.11E+05	4.74E+04	4.43E+03
5.02E+06	1.50E+06	4.97E+06	5.39E+06
1.43E+04	6.71E+03	5.54E+04	3.55E+04
2.26E+03	3.87E+03	4.89E+03	4.50E+03
4.08E+03	Filtered	7.22E+03	Filtered
1.42E+03	7.21E+03	3.95E+03	7.48E+03
4.82E+04	8.79E+04	3.08E+04	4.32E+04
2.01E+04	5.03E+04	2.54E+04	4.29E+04
4.89E+05	2.01E+05	6.37E+05	5.02E+05
Filtered	1.63E+03	Filtered	Filtered
8.52E+04	7.86E+04	1.94E+05	2.78E+05
1.61E+04	5.63E+03	1.44E+04	1.32E+04
Filtered	8.84E+03	3.30E+03	4.45E+03
6.70E+03	1.61E+04	3.97E+03	9.00E+03
3.09E+04	1.91E+05	2.90E+04	5.61E+04
Filtered	4.11E+03	Filtered	3.14E+03
8.87E+06	4.54E+06	7.09E+06	7.39E+06
5.18E+03	1.48E+03	1.63E+04	2.05E+04
7.60E+03	2.38E+04	6.62E+03	1.26E+04
9.00E+03	2.01E+04	8.13E+03	4.97E+03
4.53E+03	Filtered	Filtered	4.59E+03
9.35E+03	2.15E+04	5.37E+03	7.06E+03
Filtered	5.19E+03	7.34E+03	5.90E+03
5.24E+05	1.37E+05	4.30E+05	5.75E+05
6.03E+04	1.33E+04	3.06E+04	4.94E+04
4.97E+04	1.11E+05	3.79E+04	3.49E+04
1.47E+03	4.50E+03	2.15E+03	Filtered
Filtered	5.47E+03	2.77E+04	2.19E+04
2.91E+04	1.81E+04	1.16E+04	1.85E+04
1.67E+04	3.44E+03	2.00E+04	2.90E+04
5.76E+04	3.47E+04	7.39E+04	2.70E+04
7.01E+04	2.03E+05	4.75E+04	7.39E+04
Filtered	8.73E+03	2.31E+03	2.32E+03
Filtered	1.04E+03	2.13E+03	Filtered
1.27E+05	4.14E+04	2.28E+05	2.24E+05
Filtered	2.12E+04	7.21E+03	Filtered
2.40E+03	7.93E+03	1.10E+04	Filtered
Filtered	1.46E+04	3.73E+03	8.76E+03
2.56E+04	4.32E+04	1.47E+04	2.06E+04
1.30E+04	1.53E+04	8.71E+03	1.30E+04
3.04E+05	1.52E+05	2.96E+05	2.21E+05
2.91E+03	1.08E+04	3.57E+03	3.68E+03
1.73E+04	8.74E+03	2.22E+04	3.36E+04
4.26E+04	1.81E+04	2.76E+04	3.05E+04
5.29E+04	5.37E+03	4.30E+04	5.17E+04

Filtered	Filtered	Filtered	2.48E+03
1.57E+04	1.03E+04	1.48E+04	2.78E+04
2.50E+04	4.24E+04	1.39E+04	1.13E+04
4.86E+03	4.56E+03	1.76E+03	1.76E+03
Filtered	9.70E+03	1.04E+04	9.47E+03
2.06E+04	7.19E+04	1.89E+04	1.48E+04
9.62E+04	9.65E+04	1.30E+05	8.26E+04
1.34E+05	1.67E+05	1.21E+05	7.45E+04
2.02E+05	1.69E+05	2.00E+05	2.96E+05
4.16E+04	3.63E+04	Filtered	2.48E+04
2.09E+04	1.04E+04	2.13E+04	3.27E+04
Filtered	1.32E+03	Filtered	1.90E+03
2.86E+04	3.83E+04	3.95E+04	6.24E+04
Filtered	1.71E+03	5.28E+03	Filtered
Filtered	5.44E+02	Filtered	Filtered
Filtered	7.01E+03	Filtered	Filtered
1.48E+03	2.42E+03	Filtered	Filtered
3.56E+04	2.00E+04	2.79E+04	3.56E+04
2.44E+06	3.24E+05	1.31E+06	1.16E+06
6.28E+03	1.87E+04	Filtered	6.94E+03
7.92E+03	3.86E+04	7.06E+03	6.50E+03
Filtered	Filtered	Filtered	2.11E+03
Filtered	1.22E+04	2.48E+03	4.90E+03
Filtered	2.90E+03	8.21E+03	7.08E+03
4.28E+03	1.45E+04	1.87E+03	Filtered
Filtered	2.71E+03	Filtered	Filtered
1.65E+04	1.40E+03	9.33E+03	3.56E+03
2.05E+05	1.06E+05	2.14E+05	2.57E+05
1.58E+04	6.61E+03	2.37E+04	2.98E+04
1.64E+04	2.41E+04	2.05E+04	1.04E+04
6.09E+03	1.19E+04	3.41E+03	3.26E+03
2.79E+03	Filtered	4.35E+03	4.92E+03
4.37E+03	1.69E+04	6.15E+03	9.83E+03
7.47E+03	7.72E+03	1.07E+04	3.30E+04
5.93E+03	3.43E+03	4.43E+03	4.33E+03
Filtered	1.30E+03	Filtered	Filtered
1.87E+05	3.81E+05	1.78E+05	2.23E+05
2.65E+04	5.83E+03	2.21E+04	1.99E+04
Filtered	3.40E+03	Filtered	Filtered
1.41E+04	1.36E+04	2.60E+04	2.32E+04
1.13E+04	3.39E+05	3.28E+05	1.88E+06
2.80E+04	4.47E+04	3.31E+04	3.92E+04
2.99E+04	2.09E+04	5.44E+04	1.10E+05
1.26E+04	1.32E+03	1.43E+04	5.36E+03
2.37E+03	1.07E+03	4.08E+03	3.87E+03
5.55E+03	6.35E+03	1.96E+03	Filtered
6.10E+04	Filtered	3.68E+04	5.35E+04

1.09E+04	Filtered	1.15E+04	1.28E+04
9.70E+04	7.37E+04	1.92E+04	3.00E+05
5.51E+04	4.17E+04	8.47E+04	8.81E+04
2.48E+05	1.23E+05	3.05E+05	3.32E+05
6.47E+04	8.89E+04	3.83E+04	4.40E+04
1.01E+05	2.65E+05	1.20E+05	1.24E+05
4.73E+04	5.83E+03	3.48E+04	5.00E+04
2.19E+04	1.15E+04	3.83E+04	2.13E+04
Filtered	1.11E+04	Filtered	Filtered
9.11E+03	2.55E+04	8.10E+03	1.29E+04
1.81E+05	3.36E+04	1.61E+05	1.72E+05
2.08E+04	9.10E+04	2.41E+04	3.72E+04
3.23E+04	5.68E+04	1.97E+04	1.60E+04
4.37E+03	1.18E+04	4.17E+03	6.87E+03
Filtered	1.29E+04	1.33E+03	1.50E+03
6.46E+04	5.78E+04	8.88E+04	1.58E+05
2.11E+04	1.92E+04	2.73E+04	2.37E+04
1.98E+05	6.60E+04	2.24E+05	2.95E+05
4.10E+03	1.43E+04	3.24E+03	5.76E+03
5.97E+04	4.23E+04	1.05E+05	6.82E+04
2.27E+04	1.78E+04	8.63E+03	1.15E+04
Filtered	5.74E+03	Filtered	5.79E+03
Filtered	2.79E+03	3.22E+02	1.34E+03
3.82E+05	9.53E+04	5.16E+05	6.43E+05
1.27E+04	Filtered	1.12E+04	9.39E+03
Filtered	5.43E+03	1.25E+03	4.42E+03
6.10E+02	Filtered	Filtered	Filtered
2.92E+04	2.23E+04	2.69E+04	3.49E+04
Filtered	Filtered	8.68E+02	2.33E+03
6.61E+04	1.31E+05	8.76E+04	8.82E+04
1.47E+03	5.50E+03	2.16E+03	Filtered
4.27E+04	5.87E+04	1.90E+04	3.62E+04
Filtered	Filtered	1.90E+04	Filtered
1.50E+05	2.82E+04	1.74E+05	1.66E+05
2.73E+04	5.40E+04	8.44E+04	1.47E+05
9.75E+03	9.74E+03	2.12E+04	4.33E+04
5.95E+03	1.56E+04	4.22E+03	4.82E+03
2.55E+04	2.57E+04	5.09E+04	2.92E+04
Filtered	Filtered	Filtered	Filtered
1.46E+05	1.06E+05	1.25E+05	1.12E+05
1.58E+04	1.66E+03	2.35E+04	4.43E+04
1.01E+04	3.64E+04	8.66E+03	1.81E+04
9.18E+04	3.77E+04	3.20E+05	2.40E+05
6.59E+04	4.67E+04	8.07E+04	5.03E+04
4.98E+04	1.75E+05	6.53E+04	6.81E+04
2.19E+05	5.58E+04	3.21E+05	2.77E+05
3.98E+03	7.57E+03	Filtered	Filtered

3.79E+04	8.28E+04	2.54E+04	3.77E+04
1.88E+05	1.39E+06	1.79E+05	2.09E+05
1.96E+04	4.84E+04	9.33E+03	7.66E+03
1.72E+04	6.31E+03	2.77E+04	2.51E+04
Filtered	7.11E+03	1.94E+03	5.89E+03
Filtered	6.27E+03	6.67E+02	7.02E+02
1.05E+04	6.68E+03	1.34E+04	9.79E+03
2.65E+04	1.51E+04	1.30E+05	6.25E+04
2.50E+04	6.78E+04	2.65E+04	1.19E+04
8.47E+03	1.60E+04	6.25E+03	9.91E+03
1.45E+04	3.07E+04	1.24E+04	3.73E+03
5.65E+04	8.42E+04	5.80E+04	5.80E+04
2.54E+04	5.09E+04	2.33E+04	3.42E+04
3.02E+03	Filtered	7.98E+03	4.07E+03
1.44E+03	9.35E+03	2.04E+03	Filtered
2.73E+04	3.78E+04	2.00E+04	2.86E+04
Filtered	2.56E+03	7.38E+03	4.57E+03
2.17E+04	8.34E+03	Filtered	3.33E+04
6.36E+05	4.66E+05	1.34E+06	4.43E+05
1.72E+05	5.12E+04	5.91E+04	3.46E+04
5.13E+05	9.18E+04	1.31E+06	2.97E+05
7.67E+03	2.71E+04	1.19E+04	1.67E+04
Filtered	Filtered	Filtered	1.03E+04
1.89E+07	5.20E+06	1.88E+07	1.98E+07
Filtered	8.42E+04	2.00E+04	2.66E+04
1.50E+04	4.54E+02	9.38E+03	1.03E+04
Filtered	2.22E+03	6.56E+02	1.78E+03
5.48E+03	3.06E+03	1.09E+04	1.56E+04
9.70E+03	1.25E+04	2.72E+03	7.08E+03
5.59E+03	2.75E+04	1.44E+04	7.18E+03
4.56E+03	1.64E+04	5.81E+03	6.42E+03
1.07E+04	3.56E+04	2.00E+04	2.16E+04
2.74E+05	7.99E+04	4.21E+05	4.01E+05
9.33E+03	2.18E+04	6.56E+04	1.57E+04
3.61E+04	7.16E+03	3.48E+04	3.31E+04
1.92E+04	3.25E+04	1.32E+04	2.26E+04
8.52E+03	5.40E+03	2.75E+03	Filtered
6.06E+03	2.59E+04	7.13E+03	Filtered
4.17E+04	6.77E+04	5.22E+04	1.46E+04
1.78E+04	Filtered	Filtered	Filtered
Filtered	4.18E+03	8.48E+02	2.94E+03
1.60E+04	4.49E+04	9.98E+03	1.81E+04
1.30E+04	1.47E+04	2.67E+04	3.48E+04
2.16E+05	1.94E+05	2.76E+05	2.52E+05
1.71E+04	4.65E+03	7.50E+03	8.03E+03
1.54E+03	1.82E+03	4.80E+02	Filtered
3.90E+04	1.60E+04	3.03E+04	4.74E+04

3.44E+04	Filtered	6.01E+04	6.68E+04
3.54E+04	2.19E+04	2.29E+04	4.61E+04
3.12E+03	2.62E+03	9.35E+02	7.24E+03
4.86E+05	7.83E+05	3.87E+05	2.91E+05
Filtered	Filtered	5.56E+04	6.61E+04
2.13E+04	6.17E+03	2.76E+04	5.29E+03
9.10E+04	4.50E+04	1.11E+05	8.09E+04
Filtered	Filtered	Filtered	8.45E+02
3.15E+03	2.52E+03	1.64E+03	3.37E+03
Filtered	1.17E+04	3.73E+03	1.57E+04
1.57E+05	2.75E+04	4.02E+05	4.10E+05
1.63E+04	2.19E+04	1.05E+04	5.92E+03
9.76E+04	4.11E+04	1.45E+05	2.01E+05
3.20E+04	4.46E+04	2.77E+04	1.96E+04
2.68E+05	8.05E+04	1.93E+05	5.05E+05
2.27E+03	3.27E+03	Filtered	6.28E+02
4.06E+03	3.81E+03	8.69E+03	1.04E+04
6.39E+05	1.66E+06	5.59E+05	1.48E+06
Filtered	6.33E+03	Filtered	Filtered
2.83E+04	3.43E+04	1.68E+04	1.23E+04
2.56E+03	4.77E+02	4.33E+03	5.70E+03
Filtered	6.97E+03	3.40E+03	1.14E+04
1.16E+04	1.44E+04	7.53E+03	8.54E+03
1.43E+04	1.65E+04	2.91E+03	1.01E+04
4.63E+03	8.65E+03	2.57E+03	3.37E+03
2.58E+05	4.29E+05	1.78E+05	1.02E+05
9.62E+04	2.00E+04	7.24E+04	8.72E+04
3.38E+04	1.57E+04	3.29E+04	4.88E+04
1.32E+05	1.28E+05	5.62E+04	5.13E+04
2.38E+04	7.03E+04	4.10E+04	5.40E+04
3.17E+04	4.71E+04	2.96E+04	2.97E+04
3.94E+04	6.24E+04	3.14E+04	4.61E+04
Filtered	1.06E+04	Filtered	Filtered
4.81E+04	1.41E+04	1.71E+04	1.66E+04
5.28E+03	8.50E+03	8.45E+03	1.34E+04
1.02E+05	4.83E+04	1.74E+05	1.48E+05
6.05E+04	1.26E+04	1.87E+05	3.88E+05
2.77E+05	5.24E+05	1.87E+05	2.52E+05
3.32E+04	3.21E+04	2.11E+04	1.58E+04
5.36E+03	7.00E+03	2.26E+03	2.85E+03
1.46E+04	6.50E+03	5.96E+03	4.03E+03
6.87E+04	7.09E+04	3.90E+04	3.29E+04
8.19E+04	1.90E+05	3.61E+04	7.77E+04
2.19E+03	6.53E+03	2.70E+03	Filtered
5.00E+04	6.95E+04	1.37E+04	2.44E+04
3.82E+04	5.58E+03	Filtered	2.20E+04
2.10E+03	2.16E+03	5.13E+03	5.48E+03

7.19E+03	9.00E+02	9.52E+03	4.88E+03
2.73E+04	2.72E+04	1.74E+04	2.08E+04
4.77E+04	1.62E+04	6.52E+04	3.87E+04
1.04E+04	1.59E+03	3.17E+04	2.58E+03
1.36E+04	9.16E+03	1.25E+04	2.18E+04
4.13E+03	9.23E+03	1.18E+04	6.52E+03
4.76E+04	8.16E+04	1.68E+05	3.43E+04
1.50E+04	8.30E+04	2.12E+04	4.60E+04
2.32E+04	1.48E+04	6.04E+04	7.57E+04
Filtered	1.17E+03	Filtered	Filtered
4.90E+03	8.27E+03	6.93E+03	Filtered
4.03E+04	7.81E+04	3.07E+04	3.03E+04
4.41E+04	6.21E+04	3.56E+04	2.88E+04
1.63E+04	3.15E+04	2.06E+04	1.61E+04
4.53E+05	2.22E+05	5.01E+05	3.32E+05
4.03E+04	1.66E+04	3.11E+04	1.99E+04
4.37E+05	2.92E+05	1.66E+05	2.30E+05
3.05E+04	1.56E+04	1.92E+04	2.07E+04
8.66E+03	1.83E+04	1.12E+04	4.95E+03
Filtered	6.66E+03	4.49E+03	Filtered
7.66E+03	2.15E+04	6.96E+03	6.20E+03
Filtered	1.63E+04	1.09E+04	5.38E+03
2.20E+04	2.50E+04	4.03E+04	4.39E+04
2.99E+04	2.70E+04	1.86E+04	4.21E+04
6.27E+03	1.93E+04	8.27E+03	1.35E+04
5.76E+03	5.96E+03	7.96E+03	4.05E+03
Filtered	1.25E+04	2.92E+03	Filtered
Filtered	Filtered	4.66E+04	2.13E+04
4.55E+04	3.31E+04	3.79E+04	4.71E+04
2.09E+04	5.10E+04	1.60E+04	1.48E+04
8.49E+04	1.16E+05	5.65E+04	3.44E+04
1.20E+04	7.18E+03	Filtered	2.49E+03
Filtered	1.58E+04	5.90E+03	4.82E+03
1.87E+04	9.93E+03	2.11E+04	2.22E+04
2.46E+04	2.42E+04	1.74E+04	2.24E+04
Filtered	7.19E+02	Filtered	Filtered
3.05E+04	3.58E+04	2.65E+04	2.24E+04
1.48E+05	4.34E+04	1.14E+05	1.32E+05
3.03E+04	1.70E+04	1.81E+04	1.18E+04
7.98E+04	9.76E+03	1.48E+04	1.21E+04
3.69E+03	2.25E+03	6.02E+03	Filtered
1.68E+04	4.52E+03	2.04E+04	3.67E+04
1.42E+05	9.54E+03	3.78E+04	7.69E+04
3.01E+04	4.22E+03	Filtered	1.49E+04
1.61E+04	1.07E+04	8.92E+03	5.96E+03
8.20E+04	1.94E+04	5.50E+04	7.56E+04
Filtered	Filtered	5.77E+03	Filtered

4.07E+04	1.57E+04	5.76E+04	8.87E+04
7.10E+03	Filtered	1.32E+04	1.01E+04
2.92E+03	3.49E+03	7.32E+03	4.91E+03
Filtered	8.04E+02	Filtered	Filtered
Filtered	2.24E+03	Filtered	Filtered
3.43E+03	2.65E+03	5.28E+03	4.61E+03
5.28E+04	1.56E+05	5.02E+04	4.54E+04
5.15E+03	1.47E+04	9.43E+03	1.30E+04
2.43E+04	6.40E+03	2.11E+04	1.32E+04
1.85E+03	3.44E+04	9.06E+03	Filtered
2.74E+07	1.56E+07	1.95E+07	2.28E+07
1.02E+05	3.39E+04	1.36E+05	8.85E+04
2.44E+04	6.31E+04	2.46E+04	2.16E+04
Filtered	1.58E+04	Filtered	Filtered
4.05E+03	6.60E+03	2.76E+03	5.71E+03
3.64E+05	7.78E+04	5.21E+05	4.33E+05
Filtered	1.09E+04	5.58E+03	9.16E+03
5.60E+05	1.00E+06	2.68E+05	4.81E+05
7.04E+04	4.47E+04	2.59E+04	3.91E+04
5.69E+06	1.04E+06	4.69E+05	1.22E+05
3.15E+04	5.88E+04	5.21E+04	5.12E+04
2.61E+04	8.84E+03	9.97E+03	2.88E+04
Filtered	4.67E+03	2.84E+03	2.49E+03
9.05E+03	6.15E+03	4.20E+03	6.61E+03
2.73E+05	4.07E+05	4.21E+05	4.03E+05
4.33E+04	1.38E+04	2.14E+04	4.17E+04
1.07E+03	1.59E+04	2.38E+03	4.08E+03
2.95E+04	4.43E+04	2.18E+04	1.51E+04
1.55E+06	3.13E+05	3.25E+06	5.31E+06
5.80E+04	2.97E+04	3.85E+04	3.30E+04
1.89E+04	2.88E+04	1.64E+04	9.69E+03
4.83E+03	1.11E+04	4.75E+03	6.28E+03
3.15E+05	6.98E+04	2.07E+05	1.13E+05
1.75E+04	4.33E+04	6.34E+03	3.07E+04
6.94E+04	3.07E+04	9.46E+04	1.37E+05
2.15E+05	1.49E+05	1.63E+05	8.27E+04
2.01E+04	1.98E+04	1.31E+04	2.26E+04
Filtered	2.65E+03	Filtered	Filtered
Filtered	1.74E+03	Filtered	Filtered
1.11E+04	4.31E+04	1.14E+04	1.64E+04
9.31E+04	5.85E+04	9.09E+04	6.25E+04
2.92E+04	5.06E+04	4.68E+04	4.31E+04
1.31E+03	1.97E+03	1.89E+03	2.22E+03
3.07E+04	1.50E+05	4.90E+04	4.17E+04
3.25E+03	8.33E+03	2.79E+03	3.77E+03
1.53E+05	8.02E+05	1.33E+05	3.50E+05
1.28E+04	2.10E+04	7.41E+03	7.46E+03

7.25E+04	2.39E+04	8.59E+04	1.29E+05
9.68E+04	2.93E+04	1.97E+05	3.12E+05
3.52E+04	2.56E+04	3.05E+04	2.13E+04
5.63E+04	2.33E+04	7.83E+04	1.40E+05
3.29E+04	1.52E+04	2.70E+04	6.69E+04
8.73E+02	8.65E+03	7.80E+03	9.20E+03
Filtered	4.56E+02	1.07E+03	4.20E+03
1.88E+04	2.75E+04	1.39E+04	2.01E+04
Filtered	Filtered	6.26E+03	8.21E+03
1.21E+06	2.06E+05	7.48E+05	6.19E+05
2.47E+03	6.34E+03	1.94E+03	2.13E+03
Filtered	1.26E+04	Filtered	Filtered
8.24E+03	5.69E+03	1.85E+04	1.99E+04
7.06E+05	Filtered	Filtered	1.68E+06
1.24E+04	3.15E+04	1.43E+04	6.49E+03
Filtered	3.41E+03	1.22E+04	1.51E+04
1.25E+05	1.32E+05	9.24E+04	7.85E+04
Filtered	Filtered	Filtered	2.86E+04
Filtered	3.85E+03	Filtered	Filtered
3.96E+04	1.61E+04	5.53E+04	9.04E+04
8.68E+03	1.42E+04	5.41E+03	5.32E+03
1.37E+05	2.97E+04	1.85E+05	1.27E+05
Filtered	Filtered	6.68E+03	2.02E+03
7.24E+03	Filtered	Filtered	Filtered
Filtered	5.92E+03	Filtered	Filtered
6.92E+03	Filtered	8.12E+03	1.06E+04
5.93E+04	5.16E+04	4.40E+04	4.17E+04
Filtered	Filtered	1.29E+04	Filtered
1.04E+05	2.75E+04	1.85E+05	2.59E+05
3.09E+03	1.41E+03	2.09E+03	1.80E+03
7.50E+04	1.33E+05	5.73E+04	6.56E+04
9.40E+03	4.22E+03	8.43E+03	9.51E+03
1.43E+05	4.32E+03	5.03E+04	1.00E+04
5.11E+03	Filtered	2.86E+03	4.89E+03
Filtered	Filtered	Filtered	Filtered
Filtered	2.92E+03	Filtered	Filtered
4.50E+04	5.42E+04	1.13E+05	1.85E+05
9.36E+05	2.85E+05	1.42E+06	1.04E+06
2.99E+03	Filtered	3.47E+03	4.85E+03
5.05E+04	9.69E+04	1.38E+05	6.48E+04
2.03E+05	3.56E+04	2.95E+05	2.07E+05
3.30E+04	1.10E+04	1.57E+03	6.78E+03
9.70E+04	2.11E+04	7.73E+04	1.24E+05
Filtered	2.02E+03	1.25E+03	Filtered
2.32E+04	7.74E+04	1.21E+04	2.15E+04
2.17E+05	6.08E+04	1.01E+05	1.21E+05
1.32E+05	5.45E+04	5.96E+05	5.34E+05

2.50E+03	2.25E+03	1.13E+03	1.70E+03
1.67E+04	3.36E+04	7.63E+03	3.67E+03
6.22E+04	3.17E+04	4.55E+04	1.17E+05
3.31E+04	9.40E+03	1.69E+04	3.57E+04
2.15E+04	7.19E+04	5.27E+04	6.68E+04
2.48E+04	5.33E+04	2.90E+04	3.70E+04
Filtered	9.65E+03	3.05E+04	4.24E+04
6.45E+04	2.29E+04	7.95E+04	1.05E+05
2.13E+05	3.82E+04	1.26E+05	1.10E+05
Filtered	4.17E+03	9.04E+02	Filtered
9.07E+04	2.32E+04	1.34E+05	1.20E+05
1.66E+05	1.97E+05	1.46E+05	1.70E+05
4.03E+04	8.44E+04	2.42E+04	4.40E+04
Filtered	1.77E+03	Filtered	Filtered
2.87E+04	3.53E+04	2.84E+04	1.56E+04
4.16E+04	1.29E+04	4.46E+04	7.84E+04
Filtered	1.54E+03	Filtered	Filtered
6.66E+03	1.25E+04	4.56E+04	6.17E+03
2.22E+04	3.71E+04	1.37E+04	1.46E+04
Filtered	1.68E+03	Filtered	Filtered
1.53E+04	2.61E+04	8.11E+03	8.10E+03
7.14E+04	8.96E+04	2.84E+04	3.23E+04
Filtered	5.99E+03	8.46E+02	Filtered
Filtered	3.59E+02	1.80E+03	2.23E+03
2.28E+04	8.56E+04	2.01E+04	1.18E+04
6.36E+03	Filtered	Filtered	Filtered
3.94E+03	2.00E+03	3.68E+03	1.26E+04
Filtered	Filtered	1.19E+03	1.60E+03
Filtered	9.42E+02	Filtered	Filtered
5.04E+04	9.48E+03	7.04E+03	5.03E+04
7.06E+04	5.78E+04	8.97E+04	7.56E+04
4.32E+04	3.10E+04	1.74E+04	4.55E+04
9.64E+03	3.97E+04	2.52E+04	8.69E+03
2.45E+04	Filtered	1.54E+04	2.32E+04
1.00E+04	4.76E+03	2.67E+03	1.14E+03
7.96E+04	2.37E+04	7.29E+03	7.87E+03
7.73E+03	1.55E+04	8.98E+03	1.52E+04
4.31E+03	2.55E+03	1.30E+03	1.07E+03
5.34E+04	1.09E+04	3.60E+04	3.43E+04
2.96E+04	1.60E+04	7.28E+04	1.06E+05
2.33E+04	7.68E+03	8.10E+03	1.15E+04
4.44E+02	1.82E+03	Filtered	Filtered
Filtered	1.74E+04	3.51E+03	Filtered
Filtered	1.51E+03	1.65E+02	Filtered
Filtered	1.98E+04	Filtered	Filtered
8.02E+03	1.03E+04	7.41E+03	5.51E+03
1.67E+04	2.21E+04	2.19E+04	1.57E+04

Filtered	4.71E+03	1.24E+03	8.48E+02
5.68E+03	5.37E+03	5.95E+03	5.40E+03
1.43E+04	Filtered	1.62E+04	1.89E+04
2.00E+04	6.19E+03	2.02E+04	2.61E+04
1.70E+04	6.08E+04	1.92E+04	1.59E+04
4.26E+04	1.33E+04	3.17E+04	2.62E+04
9.41E+03	1.52E+04	5.57E+03	7.59E+03
1.70E+04	3.73E+04	2.15E+04	1.36E+04
4.54E+03	9.92E+03	2.37E+03	Filtered
1.03E+05	7.32E+04	9.64E+04	8.33E+04
1.26E+04	2.52E+04	1.08E+04	1.18E+04
1.24E+04	3.29E+04	6.24E+03	1.41E+04
9.06E+02	Filtered	1.26E+03	Filtered
Filtered	Filtered	1.05E+03	Filtered
9.90E+05	2.39E+05	9.14E+05	8.64E+05
Filtered	Filtered	3.04E+03	6.88E+03
2.01E+04	1.55E+04	1.50E+04	1.34E+04
7.98E+04	6.42E+04	9.07E+04	1.11E+05
4.18E+02	1.75E+03	Filtered	Filtered
2.09E+02	2.01E+03	5.47E+02	2.86E+02
6.06E+04	2.59E+04	6.78E+04	8.88E+04
Filtered	5.89E+03	1.58E+03	Filtered
1.78E+04	1.82E+04	Filtered	1.16E+04
2.78E+04	Filtered	1.67E+04	2.92E+03
4.53E+03	9.46E+03	1.07E+03	Filtered
Filtered	7.78E+03	Filtered	Filtered
4.31E+04	3.96E+04	Filtered	2.00E+04
1.28E+04	4.73E+03	1.36E+03	Filtered
3.01E+05	3.07E+05	3.59E+05	8.26E+04
Filtered	5.13E+03	9.86E+02	7.25E+03
1.38E+05	9.63E+04	1.23E+05	8.01E+04
1.79E+03	Filtered	Filtered	Filtered
Filtered	3.04E+02	Filtered	1.45E+03
1.46E+04	4.66E+04	1.47E+04	1.00E+04
3.33E+04	9.52E+04	4.47E+04	2.67E+04
Filtered	6.57E+03	3.16E+03	6.79E+03
5.04E+04	2.88E+04	2.05E+04	2.40E+04
1.41E+05	3.04E+04	1.43E+05	2.39E+05
Filtered	Filtered	2.20E+03	2.99E+03
Filtered	Filtered	1.02E+04	1.36E+04
3.72E+03	4.36E+03	Filtered	3.19E+03
1.61E+04	1.17E+04	1.52E+04	1.50E+04
2.79E+06	4.99E+05	2.64E+06	2.82E+06
1.36E+05	7.00E+05	1.43E+05	1.08E+05
2.93E+03	2.85E+04	6.65E+03	1.07E+04
7.91E+03	4.40E+04	5.89E+03	8.59E+03
1.03E+03	3.55E+03	3.09E+03	9.80E+02

6.75E+03	Filtered	Filtered	Filtered
5.41E+04	5.25E+04	1.56E+05	1.37E+05
3.54E+04	2.22E+04	6.65E+04	6.53E+04
9.50E+03	3.09E+04	2.54E+04	2.73E+04
1.17E+05	2.50E+05	2.34E+04	1.67E+05
1.10E+03	3.95E+03	Filtered	2.05E+03
7.38E+04	1.45E+04	5.04E+04	5.12E+04
1.15E+04	7.28E+03	8.96E+03	1.52E+04
4.58E+03	4.93E+03	3.33E+03	2.75E+03
2.41E+04	7.95E+03	1.45E+04	1.22E+04
1.88E+04	1.00E+05	8.52E+04	4.70E+04
3.20E+05	2.96E+05	4.83E+05	4.52E+05
1.42E+04	1.07E+04	8.03E+03	1.44E+04
Filtered	3.61E+03	Filtered	1.07E+03
Filtered	2.34E+03	Filtered	2.21E+02
2.80E+04	1.86E+04	1.86E+04	2.19E+04
Filtered	1.82E+04	6.75E+03	Filtered
1.83E+04	1.51E+04	3.08E+04	5.11E+04
1.12E+07	9.10E+03	1.37E+03	3.55E+03
Filtered	1.56E+03	Filtered	Filtered
1.21E+05	1.24E+05	3.26E+04	2.41E+05
6.14E+03	3.25E+04	1.16E+04	1.48E+04
3.05E+04	2.73E+04	1.51E+04	1.22E+04
1.68E+03	8.73E+02	2.60E+03	1.12E+03
2.05E+03	6.71E+03	Filtered	8.29E+03
4.65E+03	6.77E+03	2.76E+03	2.58E+03
Filtered	8.79E+03	Filtered	Filtered
2.28E+04	8.77E+03	1.80E+04	9.32E+03
1.78E+04	1.42E+04	9.33E+03	6.22E+03
9.23E+03	4.76E+03	4.40E+03	4.96E+03
5.39E+03	Filtered	6.49E+03	1.83E+03
3.09E+04	8.07E+04	2.60E+04	2.93E+04
3.69E+03	Filtered	Filtered	Filtered
3.73E+03	4.81E+03	3.79E+03	3.72E+03
Filtered	1.55E+03	Filtered	Filtered
5.04E+03	7.71E+03	5.26E+03	9.73E+03
3.78E+03	3.37E+03	4.74E+03	3.18E+03
3.22E+03	Filtered	Filtered	Filtered
8.19E+04	6.69E+04	1.01E+05	1.65E+05
5.15E+03	3.39E+03	8.24E+03	5.16E+04
Filtered	2.82E+03	3.80E+03	1.51E+03
2.46E+04	1.25E+04	3.35E+04	4.50E+04
4.89E+04	7.95E+04	1.92E+04	2.19E+04
Filtered	8.55E+03	Filtered	Filtered
8.49E+03	3.78E+04	9.07E+03	1.08E+04
3.59E+04	7.27E+04	2.66E+04	2.19E+04
9.70E+04	2.56E+04	1.23E+05	1.11E+05

3.78E+03	4.91E+03	Filtered	Filtered
7.27E+03	2.37E+04	7.51E+03	Filtered
1.84E+05	5.88E+04	1.99E+05	1.68E+05
3.01E+03	1.23E+03	2.02E+03	Filtered
8.33E+04	2.71E+05	6.42E+04	7.73E+04
3.91E+04	1.19E+04	4.55E+04	5.06E+04
8.93E+03	1.09E+04	4.48E+03	3.53E+03
3.14E+04	6.12E+03	6.08E+04	4.33E+04
1.81E+05	4.70E+04	1.75E+05	2.28E+05
7.50E+03	9.02E+03	4.68E+03	6.63E+03
3.27E+04	3.21E+04	3.35E+04	5.18E+04
1.70E+05	5.67E+04	1.42E+05	1.58E+05
9.66E+03	1.60E+04	4.34E+03	Filtered
2.18E+04	2.90E+04	1.17E+04	2.47E+04
Filtered	6.13E+03	Filtered	1.77E+03
Filtered	6.66E+02	Filtered	Filtered
5.93E+03	1.29E+04	Filtered	1.61E+04
9.29E+04	1.03E+05	2.02E+05	5.45E+05
6.72E+04	1.54E+04	4.72E+04	8.56E+04
Filtered	3.48E+03	Filtered	1.00E+03
1.21E+03	1.18E+03	Filtered	2.60E+03
1.02E+04	2.26E+04	1.12E+04	5.95E+03
1.07E+04	3.59E+04	9.23E+03	2.69E+04
7.17E+04	4.10E+04	7.45E+04	5.12E+04
Filtered	4.90E+03	Filtered	Filtered
1.95E+04	8.52E+03	1.34E+04	2.51E+04
7.25E+04	1.61E+04	1.93E+05	7.17E+04
2.93E+04	7.49E+03	1.26E+04	1.73E+04
1.10E+04	2.76E+04	7.54E+03	1.13E+04
2.65E+03	4.39E+03	1.97E+03	1.61E+03
3.05E+04	2.42E+04	1.77E+04	1.18E+05
3.39E+03	1.40E+04	3.83E+03	6.88E+03
8.34E+03	3.55E+03	3.55E+03	Filtered
2.60E+03	1.59E+04	4.08E+03	5.00E+03
7.95E+04	7.93E+04	6.08E+04	5.71E+04
Filtered	6.50E+03	1.07E+03	Filtered
4.82E+03	2.04E+03	1.17E+04	8.56E+03
4.56E+03	Filtered	Filtered	Filtered
5.33E+04	6.07E+04	3.78E+04	2.40E+04
Filtered	1.15E+04	1.31E+04	4.17E+03
Filtered	9.94E+03	2.55E+03	Filtered
4.53E+03	4.63E+03	5.72E+03	7.83E+03
Filtered	Filtered	Filtered	2.49E+03
4.09E+03	9.69E+03	Filtered	Filtered
5.48E+03	1.17E+04	5.19E+03	3.39E+03
Filtered	4.28E+03	1.75E+03	3.74E+03
8.24E+03	Filtered	4.45E+03	1.07E+04

4.94E+04	7.67E+04	2.45E+04	3.90E+04
6.78E+03	9.37E+03	2.28E+03	Filtered
6.21E+03	7.66E+03	2.97E+03	3.97E+03
2.75E+03	5.23E+03	5.09E+03	9.50E+03
8.78E+03	5.66E+03	9.49E+03	1.41E+04
Filtered	1.14E+04	Filtered	Filtered
8.61E+03	1.48E+04	1.17E+04	Filtered
Filtered	6.39E+02	4.82E+02	1.60E+03
8.21E+03	1.98E+04	3.68E+03	7.79E+03
3.02E+03	Filtered	3.48E+02	2.16E+03
7.08E+03	1.62E+03	Filtered	9.20E+03
9.43E+03	1.78E+03	1.14E+04	1.05E+04
3.69E+03	1.12E+04	2.04E+03	4.17E+03
1.09E+04	1.26E+04	8.51E+03	9.22E+03
2.21E+04	4.64E+04	1.05E+04	8.20E+03
Filtered	5.93E+03	Filtered	Filtered
Filtered	5.36E+03	Filtered	Filtered
4.50E+04	3.62E+04	4.47E+04	3.74E+04
2.92E+04	8.18E+03	5.02E+04	7.87E+04
4.32E+04	9.91E+04	4.78E+04	3.39E+04
Filtered	2.05E+03	Filtered	Filtered
3.48E+04	4.41E+04	3.88E+04	2.49E+04
5.35E+04	1.51E+05	1.13E+05	1.78E+05
3.53E+04	6.54E+04	5.06E+04	1.09E+05
Filtered	9.85E+03	8.04E+03	9.01E+03
3.50E+03	1.16E+04	4.80E+03	3.48E+03
Filtered	1.02E+04	9.19E+03	1.37E+04
1.24E+03	Filtered	1.78E+03	9.68E+02
Filtered	Filtered	2.08E+04	2.49E+04
3.32E+03	9.52E+03	2.21E+03	1.97E+03
6.40E+03	4.54E+03	3.76E+03	2.88E+03
Filtered	2.01E+04	7.63E+03	8.20E+03
3.81E+03	8.68E+03	3.53E+03	3.78E+03
4.00E+05	1.19E+06	2.53E+05	6.01E+04
1.40E+04	1.18E+04	1.23E+04	5.96E+03
2.05E+04	1.15E+04	1.45E+04	1.88E+04
4.31E+03	1.10E+04	4.12E+03	4.19E+03
Filtered	3.20E+03	Filtered	Filtered

Sample 6.PG.Quantity

1.20E+04
1.59E+05
4.04E+05
2.54E+06
1.64E+05
8.63E+06
6.84E+04
7.88E+05
Filtered
4.64E+05
6.99E+03
1.84E+05
Filtered
Filtered
1.39E+04
Filtered
Filtered
1.06E+05
Filtered
8.05E+04
1.87E+04
2.03E+04
6.65E+03
7.40E+04
5.08E+04
6.37E+03
2.73E+05
Filtered
6.08E+04
1.56E+04
Filtered
3.77E+03
1.10E+04
5.87E+05
Filtered
1.25E+06
1.32E+05
3.45E+04
4.35E+02
3.75E+03
6.82E+04
6.19E+03
3.27E+04
2.40E+04
4.17E+04
6.62E+04

1.77E+05
2.63E+03
Filtered
Filtered
5.58E+04
3.20E+05
5.17E+03
9.04E+03
4.34E+04
4.94E+04
Filtered
1.40E+05
8.70E+03
6.40E+04
2.91E+05
5.06E+04
Filtered
2.58E+04
2.38E+05
9.66E+03
9.52E+03
1.49E+05
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1.58E+06
2.90E+04
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Filtered
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9.72E+05
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3.00E+04
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9.56E+04
3.59E+04
3.20E+04
3.84E+04
Filtered
2.08E+04
7.75E+03
1.38E+05
1.83E+05
1.66E+05
5.36E+04
4.79E+03
5.80E+03
3.85E+04
6.61E+04
Filtered
8.60E+04
Filtered
3.02E+03

1.58E+03
1.51E+04
5.70E+04
8.40E+02
2.81E+04
4.70E+03
2.38E+04
7.10E+04
5.27E+04
Filtered
2.98E+03
2.82E+04
3.21E+04
1.34E+04
3.25E+05
3.35E+04
5.54E+05
1.96E+04
1.07E+04
Filtered
6.98E+03
8.00E+03
3.23E+04
1.42E+04
7.36E+03
4.13E+03
Filtered
Filtered
7.10E+04
1.65E+04
5.71E+04
4.57E+03
Filtered
2.04E+04
1.66E+04
Filtered
1.19E+04
1.09E+05
Filtered
5.91E+04
Filtered
1.69E+04
6.84E+04
Filtered
1.12E+04
7.69E+04
Filtered

4.21E+04
1.02E+04
7.09E+03
Filtered
Filtered
3.02E+03
3.47E+04
7.11E+03
1.22E+04
1.10E+04
2.21E+07
1.03E+05
2.51E+04
6.35E+03
Filtered
2.69E+05
4.55E+03
4.45E+05
2.89E+04
1.52E+04
2.27E+04
1.52E+04
Filtered
7.73E+03
2.38E+05
5.33E+04
1.23E+03
2.18E+04
2.44E+06
3.11E+04
1.35E+04
Filtered
1.39E+05
2.63E+04
1.12E+05
1.14E+05
1.30E+04
Filtered
Filtered
4.96E+03
4.67E+04
5.72E+04
Filtered
2.50E+04
2.16E+03
1.08E+05
1.62E+04

6.73E+04
1.05E+05
2.68E+04
1.11E+05
4.37E+04
1.27E+04
Filtered
1.69E+04
Filtered
5.01E+05
1.81E+03
Filtered
1.92E+04
1.77E+06
4.36E+03
1.33E+04
1.65E+05
1.29E+04
Filtered
4.89E+04
6.50E+03
9.94E+04
Filtered
2.80E+03
3.15E+03
1.21E+04
3.65E+04
Filtered
1.04E+05
Filtered
5.17E+04
6.20E+03
2.65E+04
3.73E+03
Filtered
Filtered
8.35E+04
7.33E+05
Filtered
9.00E+04
1.66E+05
1.82E+04
6.40E+04
9.39E+02
2.85E+04
7.71E+04
1.72E+05

3.73E+03
6.72E+04
5.66E+04
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3.52E+04
3.10E+04
1.95E+04
2.73E+04
2.02E+05
Filtered
5.39E+04
1.67E+05
2.91E+04
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3.37E+04
1.76E+04
Filtered
Filtered
1.24E+04
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8.89E+03
1.89E+04
Filtered
Filtered
1.65E+04
Filtered
2.43E+03
4.01E+02
Filtered
9.50E+03
3.68E+04
5.98E+04
1.63E+04
Filtered
Filtered
5.80E+03
8.49E+03
4.99E+04
4.52E+04
1.58E+04
3.91E+03
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