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Efficient SARS-CoV-2 Quantitative Reverse Transcriptase PCR Saliva Diagnostic Strategy Utilizing Open-Source Pipetting Robots.

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TITLE:

Efficient SARS-CoV-2 Quantitative Reverse Transcriptase PCR Saliva Diagnostic Strategy Utilizing Open-Source Pipetting Robots

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SUMMARY:

The protocol describes a SARS-CoV-2 diagnostic method that utilizes open-source automation to perform RT-qPCR molecular testing of saliva samples. This scalable approach can be applied to clinical public health surveillance as well as to increase the capacity of smaller university laboratories.

ABSTRACT:

The emergence of the recent SARS-CoV-2 global health crisis introduced key challenges for epidemiological research and clinical testing. Characterized by a high rate of transmission and low mortality, the COVID-19 pandemic necessitated accurate and efficient diagnostic testing, particularly in closed populations such as residential universities. Initial availability of nucleic acid testing, like nasopharyngeal swabs, was limited due to supply chain pressure which also delayed reporting of test results. Saliva-based reverse transcriptase quantitative polymerase chain

reaction (RT-qPCR) testing has shown to be comparable in sensitivity and specificity to other testing methods, and saliva collection is less physically invasive to participants. Consequently, we developed the multiplex RT-qPCR diagnostic assay for population surveillance of the university and surrounding community. The assay utilized open-source liquid handling robots and thermocyclers instead of complex clinical automation systems to optimize workflow and system flexibility. Automation of saliva-based RT-qPCR enables rapid and accurate detection of a wide range of viral RNA concentrations for both large- and small-scale testing demands. The average turnaround for the automated system was < 9 h for 95% of samples and < 24 h for 99% of samples. The cost for a single test was $2.80 when all reagents were purchased in bulk quantities.

INTRODUCTION:

Severe acute respiratory syndrome-associated coronavirus-2 (SARS-CoV-2), a novel coronavirus, emerged in late 2019 and rapidly spread throughout the global populations[1]. The SARS-CoV-2 infection causes coronavirus disease 2019 (COVID-19), a highly contagious disease with potentially severe respiratory and inflammatory symptoms. High transmissibility coupled with low mortality indicated that the virus would spread rapidly through populations and would require increased diagnostic testing[2,3]. Public health recommendations encouraged wide-scale population screening to isolate cases and subsequently reduce transmission rates[4–6]. Furthermore, models of population surveillance revealed that increasing testing frequency and decreasing reporting time had a greater effect on reducing transmission than increasing test sensitivity[7]. This is likely because infected individuals could be quarantined earlier, thereby breaking chains of infection.

The original nucleic acid amplification testing (NAAT) standard was nasopharyngeal (NP) swabs processed by RT-qPCR[8]. However, complications arise with this form of testing for very large populations, such as increased relative cost and exacerbated supply chain pressure[9,10]. Moreover, both specimen collection and processing of common NAAT methods (including NP swabs, oropharyngeal swabs, mid-turbinate swabs, and nasal swabs) are reliant on specialized equipment, reagents, and medical personnel[9,10].

An adequate substitute for NP swab RT-qPCR testing is saliva-based testing, which is an accurate diagnostic tool for SARS-CoV-2 detection[11–14]. Directly performing RT-qPCR on saliva samples yields similar sensitivity and specificity as NP swabs[15]. One major advantage saliva testing has over NP swab testing is that it allows for self-collection of specimens[16]. This minimizes the need for medical personnel and maximizes ease of sample collection for patients by being less invasive than yet as prompt as NP swabs. Additionally, since saliva samples do not require buffers to remove the sample from a swab (as in the case of NP samples), saliva-based tests can utilize heat-based ribonucleic acid (RNA) extraction directly, which decreases testing costs by removing the need for additional buffers, transport media, and/or RNA extraction reagents[14,17].

The Clemson University Research and Education in Disease Diagnostics and Intervention (REDDI) Lab was established to address the university's needs for COVID-19 testing and surveillance. In closed populations, including universities, frequent surveillance testing coupled with social distancing produced the most favorable outcomes in epidemiological models of disease

prevalence[18]. The consolidated CDC 2019-nCOV RT-qPCR[19] and SalivaDirect[14] protocols were adapted, and automation was utilized in the clinical workflow to decrease cost and improve turnaround time. Previous groups had used open-source liquid handling robots for SARS-CoV-2 RNA extraction steps[20,21], but we maximized the use of the robots to prepare test plates and load specimens[22]. Here, we show that the adapted protocol and the utilization of open-source liquid handling systems (**Figure 1**) allows for quick and accurate saliva-based RT-qPCR and is an effective strategy for large-scale public health surveillance.

PROTOCOL:

All research was performed in compliance with Clemson University and Prisma Health Institutional Review Boards (Prisma Health IRB # Pro00099491, July 1, 2020).

1. **Setup of open-source liquid handling robot**

1.1. Install high-efficiency particulate air (HEPA) filter modules (see **Table of Materials**) to the top of each liquid handling robot as per manufacturer's instructions.

1.2. Attach an 8-channel P20 pipette to the left mount of the master mix plate preparation robot(s) as per manufacturer's instructions.

1.3. Attach a P20 pipette to the right mount of the sample loading robot(s) as per manufacturer's instructions.

1.4. Download the custom Python scripts (**Supplemental File 1 and Supplemental File 2**) on the appropriate computers.

1.5. Open **TigerSaliva Full 384 Loading.py** in the desktop application at the sample loading robot computers. Click **Calibrate** and set up both the pipette and the program as per software directions.

1.6. Open **12 Full Plates.py** in the desktop application at the master mix robot computer. Click **Calibrate** and set up both the pipette and the program as per software directions.

1.7. Print custom sample racks with a fused deposition modeling three-dimensional (3D) printer using a computer-aided design (CAD) file (https://www.myminifactory.com/object/3d-print-141363). Print 16 racks per sample loading robot, for two sets of eight racks.

2. **Preparation of 20x multiplex N1+P1 probe/primer mix**

2.1. Prepare a batch of 20x multiplex N1+P1 probe/primer mix (total volume of 20 mL, **Table 1**) in a 50 mL conical tube in a sterile environment away from synthetic SARS-CoV-2 RNA or patient specimens.

2.2. Aliquot 1.6 mL of the mix using a serological pipette into sterile 2.0 mL centrifuge tubes and label appropriately.

2.3. Store aliquots in a -20 °C freezer until ready to use.

3. **Preparation of positive control mix**

NOTE: Positive control mix should not be made in the same sterile environment as probe/primer mix or other master mix components. A separate container of nuclease-free water should be used.

3.1. Dilute SARS-CoV-2 synthetic RNA (N1) from 1,000,000 gene copies/µL (cpµ) to 10,000 cpµ by adding 10 µL of stock solution to 990 µL of nuclease-free water. Aliquot 25 µL of 10,000 cpµ into sterile 0.2 mL tubes and label appropriately. Store unused aliquots at -80°C.

NOTE: Synthetic RNA must be stored at -80°C to prevent degradation.

3.2. Dilute Hs_RPP30 synthetic DNA (P1) from 200,000 cpµ to 10,000 cpµ by adding 50 µL of stock solution to 950 µL nuclease-free water. Aliquot 25 µL of 10,000 cpµ into sterile 0.2 mL tubes and label appropriately. Store unused aliquots at -80°C.

3.3. Dilute each component to a final concentration of 200 cpµ by adding 20 µL of both SARS-CoV-2 and Hs_RPP30 10,000 cpµ stocks to 960 µL of nuclease-free water, for a total of 1000 µL. Aliquot 20 µL of mixed 200 cpµ positive control into 0.2 mL tubes and label appropriately. Store aliquots at -80°C until ready for use.

4. **Preparation of master mix plate**

NOTE: Make master mix in a sterile environment away from synthetic SARS-CoV-2 RNA or patient specimens. All components must be completely thawed before adding to the mixture; without proper thawing, the concentrations may be incorrect. Inadequate thawing is indicated by the presence of ice or uneven color of reagents. Store on a freezer block while preparing the mixture.

4.1. Prepare a batch of multiplex master mix (total volume of 48 mL, **Table 2**) in a 50 mL conical tube.

4.2. Homogenize the mixture by turning the tube over 3x. Do not mix by pipetting up and down or vortexing as this will damage the enzyme.

4.3. Fill columns 1–4 of a sterile 96-well deep well reservoir by transferring 1.48 mL of master mix into each well. One 50 mL conical fills four columns, enough for 12 plates.

4.4. Cover the deep well reservoir with a foil seal and place it in the dedicated master mix liquid handling robot. Place the filled deep well reservoir on deck 10, place six empty 384-well plates

on decks 1–6, and the P20 tip box on deck 11. Uncover the deep well plate and tip boxes and close the robot.

4.5. Initialize the custom Python operating protocol by clicking **Start Run** in the robot desktop application.

4.6. After 40 min, the run will pause. Cover the filled 384 well plates with foil seals while they remain in the robot and press down with the roller to ensure adherence. Label the edge of each plate with a batch identifier.

4.7. Place six new empty 384-well plates on decks 1–6 and resume operating protocol by clicking **Resume Run**. After the run is complete, cover the final set of 384 well plates with foil seals.

4.8. Pipette 2 µL of the remaining master mix into columns 1–3 and 22–24 of an empty 384-well plate for batch quality control. Seal with an optically clear seal and run on the thermocycler (section 10.1–10.2). If any wells have N1 threshold cycle (Ct) values or if more than 10 wells have P1 Ct values, the batch is contaminated and cannot be used.

4.9. Store the prepared master mix plates at 4 °C and use them within 7 days of preparation.

5. **Sample collection, intake, and heat treatment**

5.1. Instruct participants to avoid eating, drinking, smoking, or conducting dental hygiene 30 min prior to the saliva collection. Instruct participants to collect at least 1 mL of saliva that naturally pools in the mouth and deposit it into a sterile 50 mL conical tube without preservatives, then cap the tube (**Supplemental File 3**).

5.2. Decontaminate the outside of saliva collection tubes with 70% ethanol or disinfecting wipes and transfer them to the laboratory for testing.

5.3. Record sample arrival by scanning each sample barcode into the daily intake spreadsheet (**Supplemental File 4**).

5.4. Heat-treat the scanned samples for 30 min in a 95 °C oven. Remove samples while wearing heat-resistant gloves.

NOTE: Untreated samples are stable at room temperature (23 °C) for up to 72 h. Once heat-treated, samples must be stored at 4 °C, if not being processed immediately.

6. **Sample Assignment**

6.1. Open the daily sample loading spreadsheets for each sample loading robot (**Supplemental File 5**) on the computer at the sample assignment station.

6.2. Assign 188 samples to each 384-well plate as follows: Samples 1–48 are considered quarter 1, samples 49–96 are considered quarter 2, samples 97–144 are considered quarter 3, and samples 145–188 are considered quarter 4. Sample are analyzed in duplicates.

6.3. Label trays with plate name, date, and quarter number. Scan the samples in order into the sample loading spreadsheet.

NOTE: Samples from earlier plates may need to be manually run, as defined in **Figure 3**. Refer to sections 8.1–8.3 for manual sample assignment and loading instructions.

7. **Operating sample loading robots**

7.1. At the sample loading station, line up two full sets of eight 3D printed racks corresponding to the deck placement in the robot.

7.2. Uncap quarter 1 tubes and place in 3D printed racks, starting with position A1 in rack 1. Fill each rack from left to right and top to bottom. Continue this loading pattern in rack 2, then proceed to racks 4 and 5 (refer to **Figure 2C**).

NOTE: Racks are not numbered consecutively due to the robot program parameters.

7.3. Place loaded quarter 1 sample racks on decks 1, 2, 4, 5, 7, 8, 10, 11. Place P20 tips on decks 3 and 9. To simplify the set-up process, load materials from back to front into the robot.

7.4. Take a premade master mix plate from the 4 °C, label it with plate name and use a sharp blade to cut a line in the foil around the control wells (N23/24, O23/24, and P23/24).

7.5. Place the master mix plate on deck 6 and peel away the foil cover, leaving behind the small rectangle covering the control wells. Uncover the tip boxes and close the robot.

7.6. Initialize the custom Python operating protocol by clicking **Start Run** through the robot desktop application. Each quarter takes 24.5 min to load onto the plate; set a timer as a reminder.

7.7. While the robot is running, uncap and load quarter 2 sample tubes into the second set of 3D printed racks as described in section 7.2.

7.8. When the robot pauses, remove quarter 1 racks, and replace them with quarter 2 racks. Click **Resume Run** in the desktop application.

7.9. Recap quarter 1 sample tubes and store them in a 4 °C refrigerator while awaiting results. Repeat this loading process for quarters 3 and 4.

7.10. Transfer the loaded plate to a biosafety cabinet. To minimize contamination, keep plate covered during transfer.

8. **Manual sample loading**

NOTE: Perform a single manual run on repeat samples (N1 Rerun or Rerun, see **Figure 3**) in case of inadequate robotic loading.

8.1. Gather any repeat samples and assign them as the last samples in quarter 4 (see section 6.2). Number samples, scan the barcodes, and enter the original sample location and result into the sample loading spreadsheet.

8.2. Transfer repeat samples to the biosafety cabinet. Do not load repeat sample tubes into the robot loading racks.

8.3. Pipette 2 µL of each repeat sample to the correct wells following the plate layout diagram (**Supplemental File 6**). Use a designated pipette for adding patient samples. Keep control wells covered with foil while adding samples to minimize contamination.

9. **Addition of controls to testing plates**

9.1. Peel away foil cover over control wells using forceps.

9.2. Pipette 2 µL of nuclease-free water (no template control) to wells N23–N24 and 2 µL of 200 cpµ mixed positive control (refer to section 3) to wells O23–O24. Pipette 2 µL of a confirmed positive patient sample control into wells M23–M24 as an additional control. Leave wells P23–P24 empty to monitor master mix batch quality.

9.3. Cover the plate with an optically clear seal and use the applicator roller to adhere seal to all wells. Vortex the plate at 2500 rpm for 30 sec to mix thoroughly. Centrifuge the plate at 500 x *g* for 1 min.

10. **Performing RT-qPCR**

10.1. Create a protocol program in the thermocycler software according to the conditions described (**Table 3**). Save the protocol for future plates. Place the sealed plate in the thermocycler and run the protocol.

10.2. Export Ct values as a .xslx file and copy the values into the sample loading spreadsheet (**Supplemental File 5**).

NOTE:These sheets were custom-designed for Ct output files from manufacturer software and may need modification to accept other formats.

11. **Determining plate validity**

11.1. Validate both the positive control and/or known positive samples and the negative control to consider the plate results as valid. Assess the control wells with the following criteria.

11.1.1. For positive control, check if at least one positive control well (O23/O24) produces Ct values of between 22–28 for both P1 and N1 probes. Alternatively, the known positive sample wells (M23/M24) produce P1 and N1 Ct values <33 on the P1 and N1 probes.

11.1.2. For negative control, check that there are no N1 or P1 Ct values in either of the two negative control well (N23/N24). Confirm that Ct values have valid amplification curves before invalidating the plate.

12. **Interpreting sample results**

12.1. Determine the patient result following the diagram (**Figure 3**) and report resolved samples.

12.1.1. Assess the P1 result as VALID or INVALID. If P1 produces a result of Ct <33, consider the well VALID and proceed to result from N1. If P1 produces a result of Ct >=33 or no Ct value, consider the well INVALID.

12.1.2. Assess the N1 Result as YES, NO, or NO*. If N1 produces a result of Ct <33, the well is YES. If N1 does not produce a Ct value, the well is NO. If N1 produces a Ct >=33, the well is NO*. Confirm that all N1 Ct values are associated with a real amplification curve. If a Ct value for N1 has no amplification curve, the well is NO.

12.2. Identify repeat samples (N1 Rerun or Rerun), label them with an internal sample number and sample type and return them to the loading workflow (section 8.1–8.3).

13. **Laboratory cleanup**

13.1. Liquid handling robots

13.1.1. Clean all sides with intermediate-level disinfectant. Do not use ethanol as it will degrade the plastic.

13.1.2. Gently wipe pipette tip end and waste bin with an alcohol (70% ethanol or 100% isopropanol) wipe. Wipe down the keyboard and mouse.

13.2. Biosafety cabinet

13.2.1. Clean all surfaces with intermediate-level disinfectant. Turn on the UV light for 15 min.

REPRESENTATIVE RESULTS:

We determined the range of detection for RT-qPCR probes and primers for synthetic nucleic acid content for both SARS-CoV-2 (N1) and Hs_RPP30 (P1). A 10-fold serial dilution of known

352 concentrations of combined synthetic SARS-CoV-2 RNA and synthetic Hs_RPP30 DNA in water
353 was done. The following formula was used to convert molecular weight to gene copy number
354
355 Gene copy number = (ng * 6.0221 x 10^{23})/((length in base pairs*660 g/mole) *1 x 10^{9} ng/g)
356
357 and RT-qPCR was performed. After carrying out RT-qPCR, linear curves for N1 detection (**Figure**
358 **4A**) and P1 detection (**Figure 4B**) showed good correlation coefficients across a wide range of
359 gene copy concentrations (R^2 = 0.9975 and R^2 = 0.9884, respectively). This result indicates that
360 the combination of primer and probe sets is not inhibitory and can accurately detect SARS-CoV-
361 2 RNA at one gene copy/µL (Cq=33). One gene copy is roughly equivalent to one viral copy;
362 however, we did not determine quantitative viral copy numbers in saliva due to the semi-
363 quantitative nature of RT-qPCR. We attempted to simulate positive saliva samples by spiking
364 synthetic SARS-CoV-2 RNA of known concentrations into virus-free saliva (both heat-treated and
365 non-heat treated) but were unable to produce N1 amplification at low concentrations of RNA
366 (Data not shown). This might be due to RNase degradation or other confounding factors.
367
368 The inter-and intra-assay variability between automated and manual sample loading methods
369 was also assessed. To evaluate inter-assay variability, 20 unique positive samples were loaded
370 using the manual (described in section 8.1–8.3) and automated (described in section 7.1–7.11)
371 methods. N1 Ct values were compared to determine if liquid handling robots and manual sample
372 loading produced equivalent results (**Figure 5A**). The linear relationship between manual and
373 automated methods produced a high correlation coefficient (R^2 = 0.9088), indicating that both
374 methods are functionally equivalent. As N1 Ct values increased, variability of Ct values also
375 increased. This trend is likely due to the heterogeneous distribution of viral particles within the
376 saliva, which is more pronounced when fewer particles are present. To evaluate intra-assay
377 variability, a comparison between the N1 Ct values from replicate wells of unique saliva samples
378 using both methods of sample loading was done (**Figure 5B**). The linear relationship between
379 replicates of automated sample loading (R^2 = 0.9622) produced a slightly higher correlation
380 coefficient than that of manual loading (R^2 = 0.9589), indicating high reproducibility of SARS-CoV-
381 2 detection for both loading methods.
382
383 Finally, an evaluation of saliva viscosity reduction with respect to the heat treatment methods
384 was done (**Figure 6**)**.** Saliva was obtained from a single source to eliminate sample variability.
385 Greater variability in P1 Ct values within one heat treatment method may be indicative of higher
386 sample viscosity as viscous saliva cannot be aspirated and dispensed precisely. Both 30 min and
387 60 min heat treatment methods produced significantly decreased sample variability when
388 compared to no treatment control (p = 0.0006 and p = 0.0429, respectively). There was no
389 significant difference between 30 min and 60 min treatments (p = 0.2245); therefore, the 30-min
390 heat treatment method was implemented to reduce processing time.
391
392 **FIGURE AND TABLE LEGENDS:**
393 **Figure 1: Laboratory workflow utilizing the saliva-based RT-qPCR diagnostic system.** (**A**)
394 Samples are collected and heat-treated at 95 °C for 30 min. Treated samples are sorted and
395 tracked with patient information through an in-house spreadsheet system. A liquid handling

robot loads samples into duplicate wells of prepared master mix plates. A technician manually loads the controls, seals the plate, and places the plate in a thermocycler for processing. Results are analyzed through an automated computer system and verified by a technician. (**B**) A technician prepares reagents for the master mix which are added to a deep well reservoir in a sterile biosafety cabinet. Filled deep well reservoirs are loaded into a dedicated liquid handling robot. Completed plates are sealed with foil, labeled, and stored at 4 °C.

Figure 2: Layouts used for the liquid handling robot. (**A**) Deck layout for master mix plate preparation robot(s). With an eight-channel pipette, the robot is programmed to pick up pipette tips, aspirate master mix from a 96-well deep well reservoir, dispense master mix into empty 384-well plates, and eject the pipette tips into a waste bin. This is repeated for six plates per run. (**B**) Deck setup for sample loading robot(s). With a single-channel pipette, the robot is programmed to pick up a pipette tip, aspirate a saliva sample, dispense a saliva sample into duplicate wells of a 384-well master mix plate, and eject the pipette tip into a waste bin. This is repeated for 48 samples per run. (**C**) Sample tube loading order for 3D printed racks. Red arrows indicate loading order within a rack, and the white boxed numbers indicate the loading order of the entire set of racks. The entire setup will load 188 samples in duplicate into a 384-well plate.

Figure 3: Sample resulting flowchart. Samples with valid P1 and positive N1 were determined to be human saliva samples positive for SARS-CoV-2. Valid and positive/negative sample results were considered conclusive. Samples that did not produce conclusive results in the first run were categorized as Rerun (denoted RR) or N1 Rerun (denoted N1 RR). Rerun samples had no valid P1 amplification, and N1 Rerun samples had positive N1 amplification in a single replicate. If no valid P1 amplification could be produced by a subsequent manual run, or both replicates had N1 Ct values above the positive threshold (Ct >33), the sample results were considered inconclusive. For clinical purposes, patient samples that did not arrive at the lab, had an insufficient quantity of saliva to pipette or were damaged were considered invalid.

Figure 4: RT-qPCR detection of N1 (SARS-CoV-2) synthetic RNA and P1 (Hs_RPP30) synthetic DNA. Standard curves were plotted with standard deviations to determine the range of accurate detection using this probe/primer combination. (**A**) The mean Ct values (n =4) obtained in respective dilutions were plotted against the estimated quantity of synthetic RNA ($1x10^0$ to $1x10^4$ RNA copies in 10 µL of RT-qPCR reaction). (**B**) The mean Ct values (n =3) obtained in respective dilutions were plotted against the estimated quantity of synthetic DNA (1×10^0 to 1×10^4 gene copies in 10 µL of RT-qPCR reaction).

Figure 5: Comparison between manual and automated saliva transfer SARS-CoV-2 (N1) Ct values. The known SARS-CoV-2 positive saliva samples (n =20) were loaded in duplicate into an RT-qPCR master mix plate by a liquid handling robot. The samples have a Ct value ranging from 18–32 for N1. The same samples were then manually loaded into duplicate wells in a different plate location. (**A**) N1 Ct values obtained from unique samples using both the robot and manual sample loading were transposed to determine inter-assay variability between manual and robot loading. (**B**) Intra-assay variability was also determined by using transposed replicate of N1 Ct values obtained from both robot and manual sample loading.

Figure 6: Evaluation of heat treatment methods for viscosity reduction in saliva. SARS-CoV-2 negative saliva was collected from a single source and aliquots were heat-treated for either 0 min, 30 min, or 60 min at 95 °C. P1 Ct values from technical replicates (n =12) of each condition were plotted to determine variability between treatment methods. Pairwise comparisons between groups were evaluated with an unpaired t-test (*** indicates p <0.001, * indicates p <0.05).

Supplemental Figure 1: Comparison of N1 Ct in low P1 Ct saliva samples. The positive samples with low P1 Ct were selected and compared with the N1 Ct (n =106). The N1 Ct values ranged from 14–33, indicating the assay has a dynamic range in saliva samples that is comparable to the standard curve.

Table 1: Components of N1+P1 probe/primer mix.

Table 2: Components of multiplex SARS-CoV-2 master mix.

Table 3: Touchdown RT-qPCR protocol. Thermocycling conditions for one-step RT-qPCR SARS-CoV-2 diagnostic assay.

Table 4: Comparison of touchdown Ct values for five positive samples against no touchdown Ct values.

Table 5: Comparison of TigerSaliva Ct results and commercially available saliva-based SARS-CoV-2 assay results. Both assays were performed on the same saliva samples (n =8).

Supplemental File 1: Custom script for robot master mix plate creation.

Supplemental File 2: Custom script for saliva processing on sample loading robots.

Supplemental File 3: Instructions for self-collection of high-quality saliva samples from participants. Further details can be found in the short video description of the testing process available at https://www.clemson.edu/centers-institutes/reddilab/index.html.

Supplemental File 4: Sample intake spreadsheet.

Supplemental File 5: Sample loading spreadsheet.

Supplemental File 6: Sample 384-well plate layout diagram.

DISCUSSION:

The assay described in the protocol was assessed by an independent validation study. It was found that the assay had 98.9% specificity (1.1% false positive) and 90.0% sensitivity (10.0% false negative) when evaluated against paired nasopharyngeal swabs taken at the same time (n =837;

484 817 negatives, 20 positive). Importantly, three participants who tested positive with TigerSaliva
485 and negative with a nasopharyngeal swab were retested with swabs 48 h later and returned
486 positive results, indicating that TigerSaliva may be able to detect SARS-CoV-2 infections earlier in
487 the course of illness.
488
489 The protocol was used to determine the Ct limit in saliva by simulating positive saliva samples by
490 spiking with known concentrations of synthetic SARS-CoV-2 RNA into virus-free saliva (both heat-
491 treated and non-heat treated) and performing a 10-fold dilution. The N1 gene was not detectable
492 below 10,000 gene copies (approximately Ct = 28) in simulated positive samples. We suspect this
493 is due to RNase degradation or other confounding factors. However, the interaction of saliva
494 RNases with naked synthetic RNA is likely different from the interaction with viral particles, even
495 after they have been denatured by heat. Positive saliva samples have been identified with Ct >30
496 and external labs obtained SARS-CoV-2 genetic sequence data from these samples. We speculate
497 that the viral proteins provide protection from RNA degradation in patient saliva samples.
498
499 The most critical step in the protocol is the implementation of automation for master mix
500 preparation and saliva sample processing (sections 4 and 7 respectively). This allows for
501 overlapping task processes, which drastically reduces turnaround time. Another critical step is
502 clinical result interpretation (sections 11 and 12). Establishing intermediate result categories
503 (Rerun and N1 Rerun) also minimized the occurrence of inconclusive test results.
504
505 We demonstrated that variation between manual and automated saliva sample loading methods
506 is negligible (**Figure 5A**) and that automation may improve the reproducibility of SARS-CoV-2
507 detection (**Figure 5B**). Automation should be favored to facilitate testing when designing and
508 expanding clinical labs[25]. Laboratory workflow is improved with the implementation of robot-
509 automated tasks[26]. Open-source capabilities of the liquid handling robots allow for the
510 implementation of custom scripting for protocol design. This makes liquid handling robots
511 inexpensive and acts a highly modifiable system compared to traditional clinical automation
512 methods. It is also an ideal strategy for executing highly repetitive laboratory tasks. The high level
513 of customizability of the system translates to freedom to alter labware (e.g., collection tubes,
514 pipette tips, or 384-well plates) in case of shortages. Therefore, automation by using liquid
515 handling robots is viable for both large-scale and small-scale surveillance and research.
516
517 A major advantage of this testing strategy is a much shorter turnaround time relative to other
518 clinical labs. The utilization of automated liquid handling robots plays a key role in reducing
519 turnaround time, but concurrent use of robots and thermocyclers is also instrumental in
520 maximizing testing efficiency. One robot and thermocycler should be operated as a pair, where
521 both machines are used in tandem for uninterrupted sample loading and sample result analysis.
522 Once a steady flow of assigned samples is established, all machine pairs can be operated
523 simultaneously. Constant concurrent use of robots and thermocyclers drastically increases
524 testing capacity and efficiency, which is crucial to accommodate the high testing volume.
525
526 In contrast with other established SARS-CoV-2 RT-qPCR protocols, we included a touchdown step
527 in the thermocycler protocol to improve annealing of the probe and primer sets to the target

528 genes[27], reducing the risk of failed amplification. The results demonstrated that the touchdown
529 improved the detection of positive samples without risking the loss of specific primer binding
530 (**Table 4**). We determined that a wide range of both SARS-CoV-2 RNA copies (**Figure 4A**) and
531 Hs_RPP30 DNA copies (**Figure 4B**) can be simultaneously detected by the RT-qPCR assay.
532
533 One limitation of liquid handling robots is the possibility of cross-contamination from positive
534 samples during saliva transfer. Saliva is a viscoelastic fluid[28] and may string across adjacent wells
535 after being dispensed from the pipette tip. Furthermore, the heterogeneity of saliva[29] may cause
536 uneven distribution of viral particles throughout the sample. This increases the possibility of both
537 false positives and negatives, necessitating the designation of N1 Rerun and Rerun samples.
538 However, 14.1% of samples initially designated as N1 Rerun resolved as positive for SARS-CoV-2
539 and were more than 30 times more likely than Rerun samples to resolve as positive after
540 retesting. Consequently, differentiating Rerun from N1 Rerun (**Figure 3**) allowed for more
541 accurate separation of potentially positive samples, increasing the sensitivity and specificity of
542 our diagnostic assay. Other resulting parameters for diagnostic saliva testing did not make this
543 distinction[12,14,24,30,31].
544
545 Saliva specimens can be difficult to pipette due to heterogeneity and viscosity[32]. Heat treatment
546 adequately denatures proteins in the saliva biomatrix, reducing viscosity and eliminating the
547 need for RNA extraction reagents[9], which were scarce during the early stages of the pandemic[10].
548 Extended heat treatment also inactivates present viruses[33] which allows for laboratory
549 processing at lower biosafety levels. Consequently, a heat-based RNA extraction (described in
550 section 5.4) was implemented to decrease viscosity through protein denaturation (**Figure 6**).
551 Based on the results, we postulate that heat treatment may also homogenize saliva samples in
552 addition to denaturing the protein biomatrix. Other groups combined heat treatment and
553 proteinase K treatment to increase homogeneity[9,14,34]. We chose to not implement this step as it
554 may denature virion proteins at a rate that leaves viral RNA exposed to heat degradation[35].
555 Furthermore, sample dilution with proteinase K may mask positive samples containing fewer viral
556 particles thus, decreasing sensitivity. In addition, the assay results were compared to a
557 commercially available saliva-based SARS-CoV-2 assay (Logix Smart COVID-19) which uses
558 magnetic bead RNA extraction (**Table 5**). It was found that the current assay was better suited at
559 detecting weak positive samples as compared to the commercially available assay.
560
561 It is difficult to quantify virus copy number in saliva using only RT-qPCR, because qPCR is semi-
562 quantitative. There is inherent variation between Ct values that originates from technical
563 limitations. Gene copy number can be determined from Ct values (**Figure 4**) and is roughly
564 equivalent to viral copy number. One possible solution to determine the viral copy number in
565 saliva samples is ddPCR, which provides hard quantification of gene copies in the reaction.
566 However, we believe that it is adequate to provide qualitative results to clinicians and relative
567 viral content can be compared across samples processed with our methods.
568
569 Despite some limitations that arise when using saliva, the SARS-CoV-2 assay by saliva-based RT-
570 qPCR proves to be an effective method for quick and reliable viral RNA detection at any scale of
571 testing. This is especially true when coupled with the utilization of open-source liquid handling

572 systems. This testing approach can be modified to detect other nucleic acid sequences relevant
573 to diagnostics, such as infectious disease agents, disease markers, or other viruses. This makes
574 the assay applicable for both clinical and research diagnostic efforts.
575
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586
587 **DISCLOSURES:**
588 The authors have nothing to disclose. The assay described in the protocol falls under the
589 SalivaDirect EUA filed by Yale School of Public Health.
590
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684
685

Figure 1 revised

Click here to access/download;Figure;Figure 1.pdf

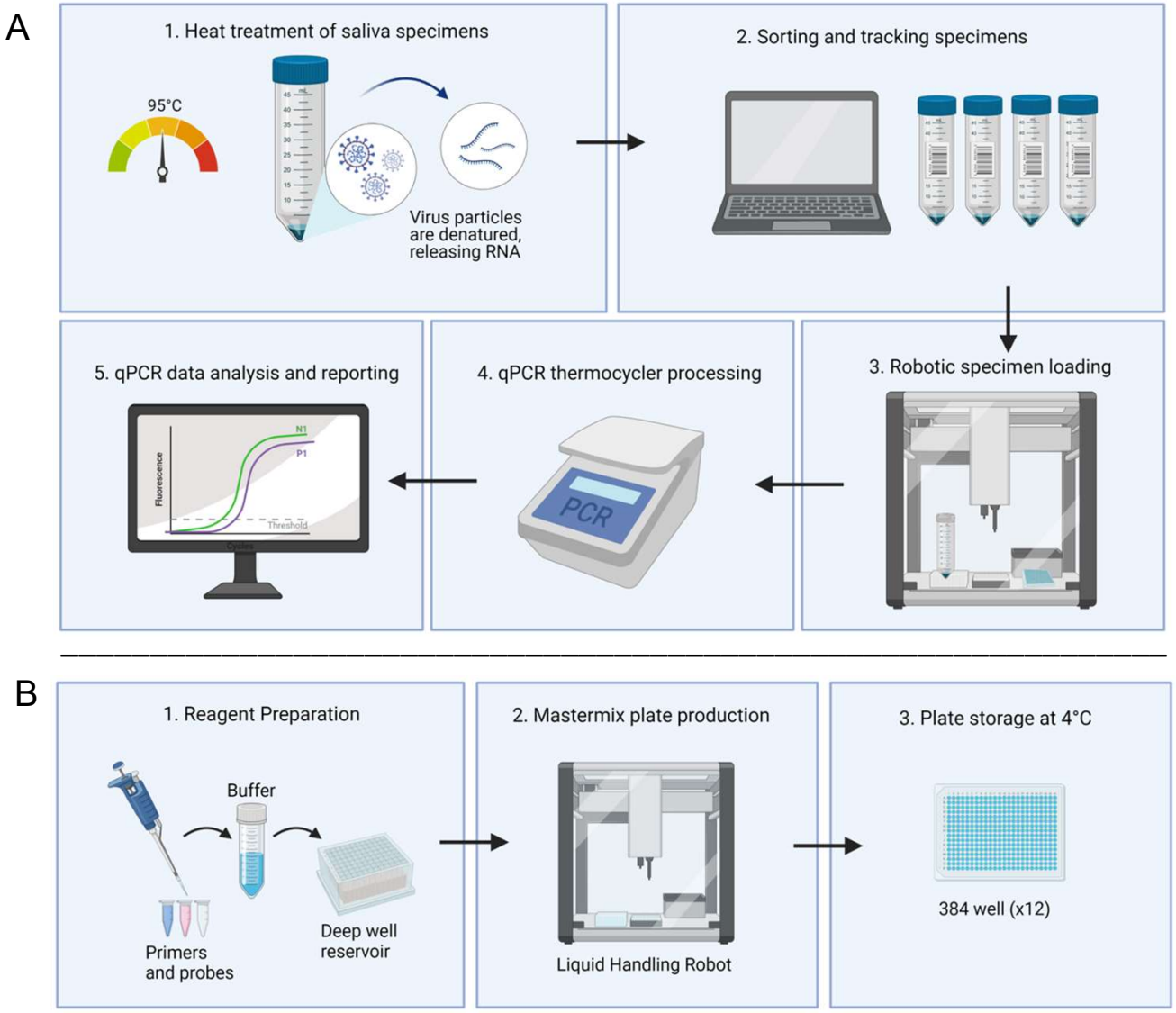

Figure 2 revised

Click here to access/download;Figure;Figure 2_updated.pdf

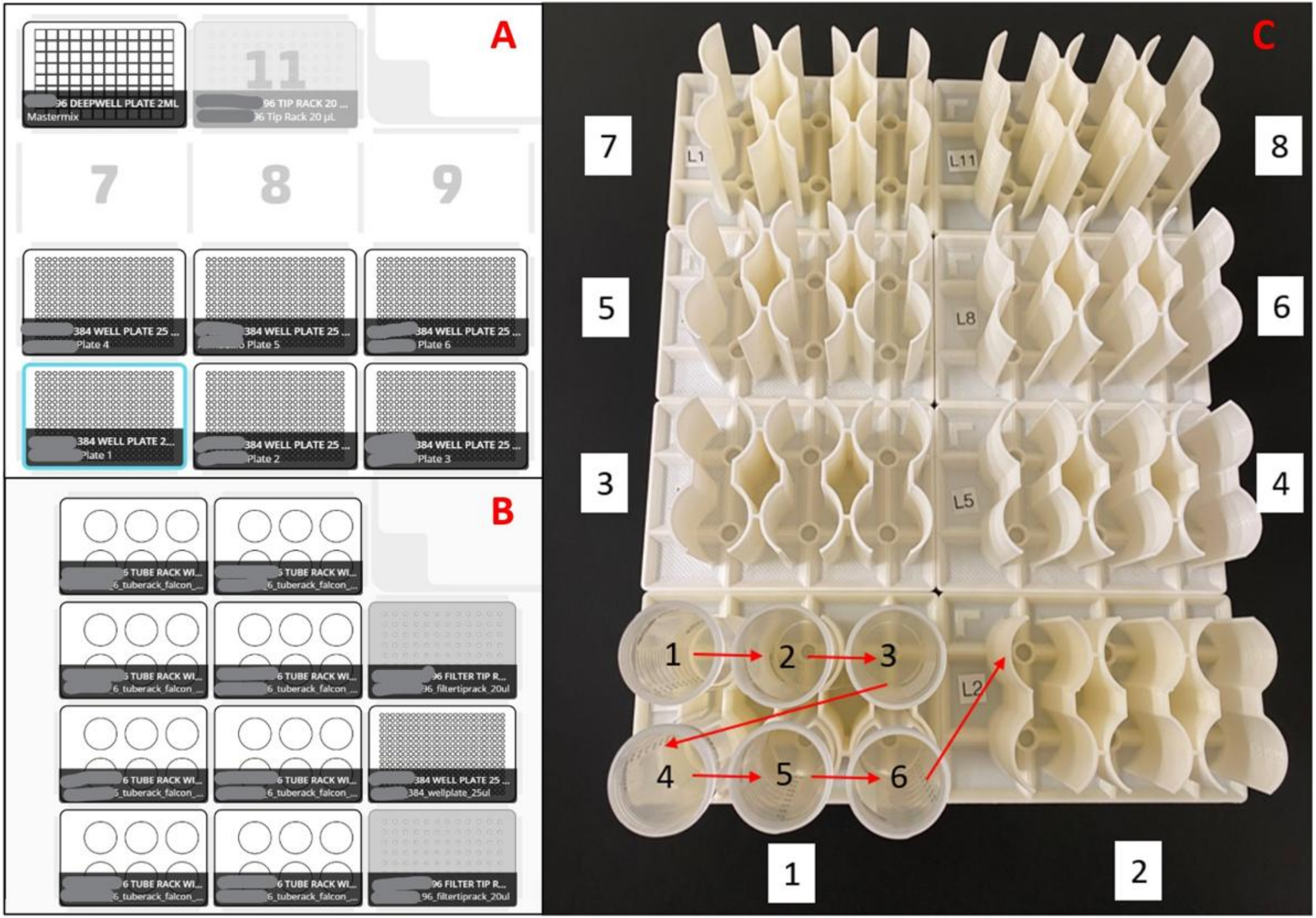

Figure 3 revised

Click here to access/download;Figure;Figure 3.pdf

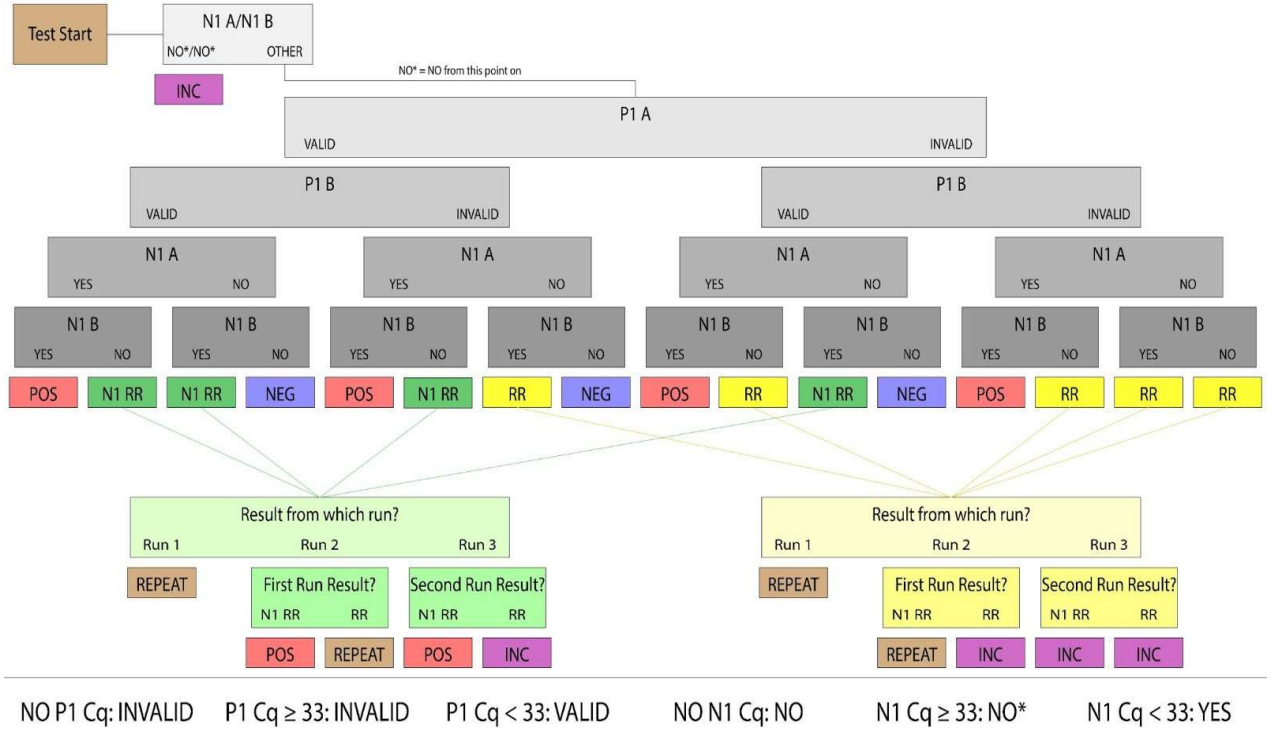

Figure 4 revised

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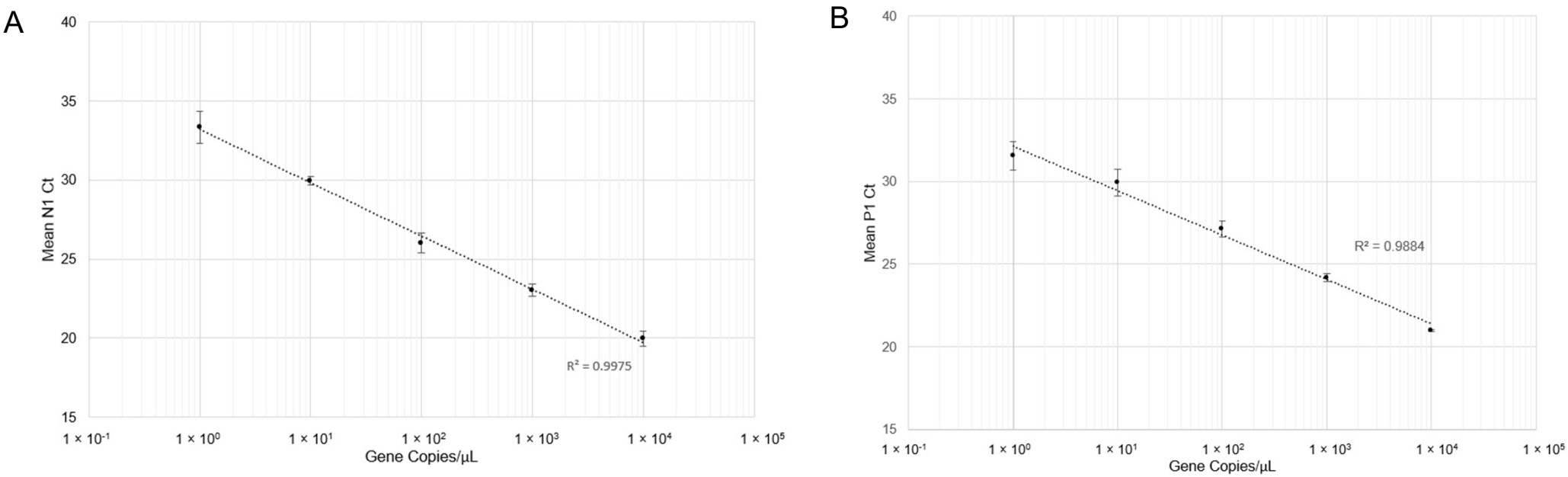
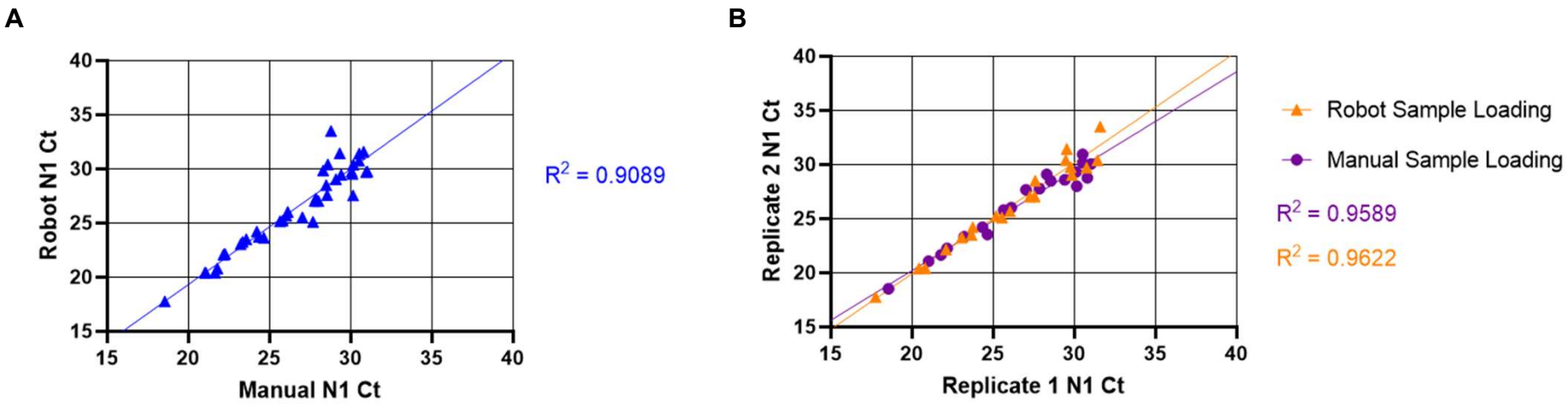


Click here to access/download;Figure;Figure 5.pdf



Click here to access/download;Figure;Figure 6.pdf

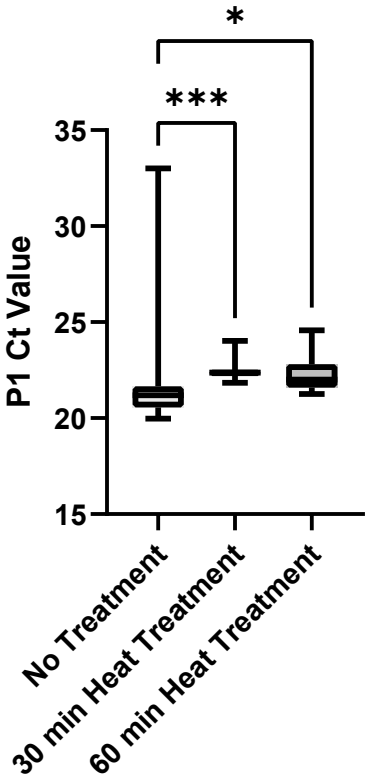


Table 1

Click here to access/download;Table;Table 1_RE.xlsx

Component	Sequence (5'→3')	Stock Concentration
2019-nCoV-N1 Probe	/5FAM/ACCCCGCAT/ZEN/TACGTTTGGTGGACC/3IABkFQ	50 µM
2019-nCoV-N1-For	GACCCCAAAATCAGCGAAAT	100 µM
2019-nCoV-N1-Rev	TCTGGTTACTGCCAGTTGAATCTG	100 µM
Hs RPP30 Cy5 Probe	/5Cy5/TTCTGACCT/ZEN/GAAGGCTCTGCGCG/3IABkFQ	50 µM
Hs-RPP30-For	AGATTTGGACCTGCGAGCG	100 µM
Hs-RPP30-Rev	GAGCGGCTGTCTCCACAAGT	100 µM
Water	-	-

Volume
500 µL
2000 µL
2000 µL
500 µL
2000 µL
2000 µL
11000 µL

Table 2

Click here to access/download;Table;Table 2.xlsx

Component	Stock Concentration	Volume per reaction	Final Concentration
Luna WarmStart RT Enzyme Mix	20X	0.5 µL	1X
Luna Buffer Reaction Mix	2X	5.0 µL	1X
N1+P1 Primer/Probe Mix	nCoV N1 F: 10 µM	0.5 µL	500 nM
	nCoV N1 R: 10 µM		500 nM
	Probe nCoV N1: 2.5 µM		125 nM
	RPP_30 P1 F: 10 µM		500 nM
	RPP_30 P1 R: 10 µM		500 nM
	Probe RPP_30 P1: 2.5 µM		125 nM
Nuclease Free Water	---	2 µL	---
Subtotal	---	8 µL	---
Template		2 µL	

Batch Volume
3 mL
30 mL
3 mL
12 mL
48 mL

Table 3

Click here to access/download;Table;Table 3.xlsx

Stage	Temperature (°C)	Duration	Number of Cycles
Reverse Transcription	55	10 min	1
Initial Denaturation	95	1 min	1
Touchdown	95	10 sec	3
	72	30 sec	
	95	10 sec	3
	69	30 sec	
	95	10 sec	3
	66	30 sec	
Main Amplification	95	10 sec	40
	65	30 sec	

Table 4

Click here to access/download;Table;Table 4.xlsx

	Touchdown Step		**No Touchdown Step**	
	Mean N1 Ct	*Mean P1 Ct*	*Mean N1 Ct*	*Mean P1 Ct*
Sample 1	19.65	22.7	27.8	28.3
Sample 2	22.24	24.9	28.77	30.5
Sample 3	18.85	19.2	24.65	25.9
Sample 4	25.56	22.8	31.93	29.2
Sample 5	22.34	24.8	38.48	40.0 (Failed detection)

Table 5 Click here to access/download;Table;Table 5_RE.xlsx

Sample	**TigerSaliva**		**Commercially available saliva-**	
	N1 Ct	*P1 Ct*	*Covid-19 Value*	*RNaseP Value*
D11	16.4	18.1	20.86	23.4
E11	18.9	19.1	25.6	21.2
F11	19.5	18.4	22.8	22.2
G11	22.2	19.1	23.7	22.9
H11	26.4	21.3	32.2	26.7
A12	14.8	16.5	29.15	19
B12	24	19.6	31.05	21.35
C12	14.9	17.5	20.84	18.9

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Table of Materials
Table of Materials-RE.xlsx

Click here to access/download;Rebuttal Letter;JOVE-Response to Reviewers.docx

Response to reviewers: (JoVE63395: Ham and Smothers et al.)
We sincerely thank the reviewers for generously taking time to review our revised manuscript and for their helpful comments. We were pleased to read many positive comments including "*carefully reviewed*," "*provides clear guidance for interpreting results*," and "*covers timely objectives*." We have edited our manuscript based on the reviewers' comments. Below, we paraphrase the reviewers' suggestions (in italics), provide responses, and summarize our changes. We have provided both a marked up copy of the original manuscript and a clean copy. The line numbers correspond to the newly edited clean-copy manuscript. We hope that our manuscript is now suitable for publication in *JoVE.*

Reviewer 1
We thank Reviewer 1 for taking time to review our manuscript.

1. We apologize that the formatting was difficult to read; we were following the JoVE submission formatting guidelines which require highlighting of sections. We have tried to include a bit more white space while maintaining adherence to the formatting instructions to help with manuscript readability.

Reviewer 2
We thank Reviewer 2 for taking time to review our manuscript.

1. *"Please comment on the name "TigerSaliva" in the abstract."* The name for the assay originates from the mascot of Clemson University and the direct saliva testing method. We removed the reference to the name of the assay in the abstract to avoid confusion [Line 37].

2. *"Please clarify the statement: Additionally, saliva-based tests can decrease cost by removing transport media and RNA extraction reagents by performing heat extraction" and explain why heat extraction is not suitable for nasopharyngeal samples."* Heat-based RNA extraction can be performed on the viral transport media used to solubilize virus from nasopharyngeal swabs. However, saliva still decreases testing cost by removing the need for viral transport media, as the sample is already in a testable form. The heat extraction is also beneficial in reducing saliva viscosity and inactivates the virus as described in the discussion. We have revised the manuscript to reflect this fact more accurately [Lines 70-72].

3. *"Explain all acronyms on first use."* We apologize for this oversight and have included definitions of all acronyms and abbreviations.

4. "*…Authors should mention the indicators of the complete/adequate thawing."* We agree this will improve the protocol. We have added a description of thawing in Step 4 [Lines 156-158].

5. *"…The authors should describe how to determine the virus copy number and what are the technical challenges and possible solutions in determining the accurate virus copy number."* You have raised an important point. It is difficult to quantify virus copy number in saliva using only RT-qPCR, because qPCR is semi-quantitative. Based on this, there is inherent variation between Cq (Ct) values that originates from technical limitations of the method. We provide a Cq (Ct) quantification of gene copy number in the standard curves (Figure 4) using known quantities of synthetic RNA. One possible solution to determine the viral copy number in saliva samples is ddPCR, which provides hard quantification of gene copies in the reaction. However, we believe that it is adequate to provide qualitative results to clinicians and relative viral content can be compared across samples processed with our methods.

6. *"…include formula for conversion of copies mL-1 to molar concentration…"* Thank you for your suggestion. We purchased the synthetic RNA controls used in the standard curve (Figure 4) at known gene copy concentrations. We have added the conversion from molecular weight to gene copy number in the Figure 4 caption [Line 428-429].

7. *"There are some typos in the manuscript…"* We apologize for these errors and have corrected the spelling and notation throughout.

Reviewer 3
We thank Reviewer 3 for taking time to review our manuscript.

1. *"… Please either define the "cpu" acronym or change to the more intuitive "copies/ul."* We have altered the notation to gene copies/µL (cpµ).

2. *"Figure 1 legend should define "OT-2" as the Opentron OT-2 Liquid Handling Robot."* Thank you for this clarification, we have amended Figure 1 to improve readability.

3. *"Figure 3 legend should define "RR" as "Re-run."* Thank you for this clarification, we have amended Figure 3 legend to improve readability.

4. *"It would have been nice if the authors had devised a way to demonstrate the limit of detection of virus/viral RNA in saliva matrix."* Thank you for your insightful comment and we have answered many of the methodological difficulties in response to Reviewer 4 (Comment 7).

Reviewer 4
We thank Reviewer 4 for taking time to review our manuscript.

1. *"…Could the authors provide specific numbers for total turnaround time as well as cost per sample? …"* Thank you for pointing this out. The average turnaround time was < 9 hours for 95% of samples and < 24 hours for 99% of samples. The cost for a single test was $2.80 when all reagents were purchased in bulk quantities. We have added these numbers to the abstract [Lines 41-44].

2. *"The saliva collection part could be illustrated with a short video. … giving clear guidance should maximize the number of samples that give a result."* We agree that this may improve sample collection consistency and have a short video description of our process on the lab website (https://www.clemson.edu/centers-institutes/reddilab/index.html). In addition, we provide written instructions for collection administrators to assist the participants, which has helped reduce issues of poor-quality collection samples. We have added these as supplemental implementation materials.

3. *"50 mL conical tubes have themselves been under supply chain shortage. Could the authors propose some alternatives that can be used?"* We agree this would be a helpful addition. Any sterile container can be used to collect saliva, a good alternative would be 15 mL conical tubes. Because the liquid handling robots are open source, the code can be modified for any size of container used to collect saliva. It is important to consider the diameter at the opening of the container to ensure ease of sample collection. We have explained how the robots can be modified to accommodate alternate products in case of shortages [Lines 495-497].

4. *"The sample assignment part is not described clearly enough, though I suspect the video will help here..."* We agree that this is difficult to explain in text. We plan to highlight this process in the video since it is simple to depict visually.

5. *"Could it be an idea to dilute the saliva samples a bit with buffer (to further reduce problems with saliva viscosity)?"* Thank you for this suggestion. While this may reduce viscosity, it also introduces the risk of masking a weakly positive sample, so we opted not to dilute the samples. We also determined that viscosity is significantly reduced after a 30-minute heat treatment and did not interfere with test results as seen in Figure 6.

6. *"The authors mention a touchdown step in qPCR: why not add a comparison on how much this step improves reproducibility/reduces failure to amplify?"* We agree that this is an interesting comparison. However, it is difficult to approximate reproducibility. Below, we show the comparison of positive samples run with and without the touchdown (Table 4). The limit of detection is higher without the touchdown, making it difficult to determine weak positive samples. One weak positive sample failed the assay without the touchdown, and this would likely occur for many other samples. We believe it is better to extend the run with a touchdown to prevent loss of specific primer binding. We have included this in the manuscript.

Table 4. Comparison of Touchdown Ct values for five positive samples against No Touchdown Ct values.

	Touchdown Step		**No Touchdown Step**	
	Mean N1 Ct	*Mean P1 Ct*	*Mean N1 Ct*	*Mean P1 Ct*
Sample 1	19.65	22.7	27.80	28.3
Sample 2	22.24	24.9	28.77	30.5
Sample 3	18.85	19.2	24.65	25.9
Sample 4	25.56	22.8	31.93	29.2
Sample 5	22.34	24.8	38.48	40.0 (Failed detection)

7. *"What is the Ct limit in saliva samples? The authors only mention that detection of low amounts in saliva didn't work."* The synthetic RNA was not detectable at low quantities in either heat treated or non-heat treated saliva, which we suspect is due to RNase degradation or other confounding factors. We attempted treatment with RNaseOUT, which did improve the detection of synthetic RNA. However, the interaction of the saliva RNases with naked synthetic RNA is likely different from the interaction with viral particles, even after they have been denatured by heat. We have identified positive saliva samples with Ct > 30 and external labs were able to analyze the genomic sequence data, which proves the presence of SARS-CoV-2 virus particles. We speculate that the viral proteins provide protection from RNA degradation in patient saliva samples, which are lacking in simulated positive samples.

8. *"Figure 3 could be made clearer…"* We appreciate your feedback, and we have clarified some the notation by defining RR and N1RR in the Figure legend.

9. *"It may be useful to mention if (and how) the entire workstation should be decontaminated between runs to further reduce molecular contamination."* We agree that this information will be useful in implementation of the method. We routinely decontaminate the stations with an intermediate-level disinfectant and ethanol wipes and have included this as Section 13 in the protocol [Lines 343-358].

10. *"Sample heterogeneity, and possibly reduced sensitivity when RNA is not extracted, are big challenges for testing. It would be useful to show how well the Ct values obtained with the described protocol correlate with (and reflect) Ct values obtained with a more standard procedure (extracted RNA, qPCR)."* Thank you for this suggestion, we agree it would be interesting to explore this aspect. We routinely conduct proficiency testing at Greenwood Genetic Center; they perform the nCov CDC assay on heat-treated saliva without RNA extraction and a recent report showed 100% result agreement. Additionally, an external lab performed RNA extraction and Co-Diagnostics Logix assay as a QC measurement prior to whole genome sequencing. While the Covid-19 value originates from amplification of E and RdRP genes, we believe this represents the ability of our assay to correctly determine positive samples without RNA extraction as we had >95% results agreement (n=320, 315 positives, 5 negatives). Of the discordant results, our results were positive while the CoDx results were negative, suggesting that our test has greater sensitivity. We have added this information as Table 5 and have added information to the discussion [Lines 540-543].

Table 5. Comparison of TigerSaliva Results and Logix Co-Diagnostics Results.

Sample	**TigerSaliva**		**Co-Diagnostics Logix**	
	N1 Ct	*P1 Ct*	*Covid-19 Value*	*RNaseP Value*
D11	16.4	18.1	20.86	23.4
E11	18.9	19.1	25.6	21.2
F11	19.5	18.4	22.8	22.2
G11	22.2	19.1	23.7	22.9
H11	26.4	21.3	32.2	26.7
A12	14.8	16.5	29.15	19.0
B12	24.0	19.6	31.05	21.35
C12	14.9	17.5	20.84	18.9

Reviewer 5

We thank Reviewer 5 for taking time to review our manuscript.

1. *"…it does not convey how accurate and sensitive the protocol is and what is the % false positive, and false negative count of the outcome."* We agree that these measurements are necessary for clinical application. The assay had 98.9% specificity (1.1% false positive) and 90.0% sensitivity (10.0% false negative) when evaluated against paired nasopharyngeal swabs taken at the same time (n=837, 817 negatives, 20 positives). Importantly, three participants who tested positive with TigerSaliva and negative with a nasopharyngeal swab retested with swabs 48 hours later and returned positive results, indicating that TigerSaliva may be able to detect SARS-CoV-2 infections earlier in the course of illness. Our assay falls under the SalivaDirect EUA filed by Yale School of Public Health. As with all diagnostic tests, sensitivity and specificity affect one another, and an increase in one often correlates to a decrease in the other. Because this assay is intended to facilitate frequent and non-invasive testing, we believe it is appropriate to prioritize specificity over sensitivity. Consequences of false positives are more significant than consequences of false negatives. Moreover, we have improved sample collection instructions that may have led to poor quality samples in the initial validation. Sick participants are more likely to provide samples containing phlegm, which may interfere with the test. We have included these instructions as a supplemental file as well as a comparison with a commercially available saliva SARS-CoV-2 diagnostic assay (Table 1). We have also added information regarding specificity and sensitivity to the discussion [Lines 472-478].

2. *"The paper needs to be supported with the following sets of data using reference samples or showing relevance to the clinical outcome of the samples as to how accurate the test outcome is….*

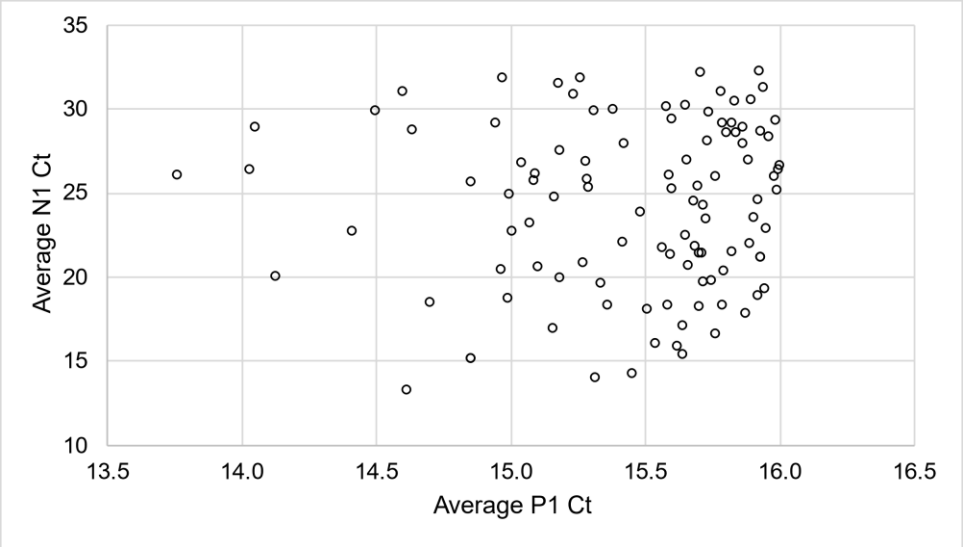
   a. Percent False negative, false positives encountered in the manual and automated process.

   b. Accuracy % of both the strategies manual and automated.

   c. Linear curve of N1 in the presence of high copy number of Hs_RPP30 since high copy number of Hs_RPP may impact low number of copies of N1 returning such a sample as false negative."

Thank you for pointing this out. We did not separate the rates of false positives and false negatives originating from manual and automated methods against the gold standard nasopharyngeal swabs. However, we observed 100% agreement between manual and automated methods for both negative and positive samples in preliminary analysis (n=93, 86 negatives, 7 positives). We believe that there are negligible differences between manual and automated processes based on the low inter-assay variability demonstrated in Figure 5.

We do not believe that high copy number Hs-RPP30 interferes with detection of SARS-CoV-2 in saliva samples. We selected positive samples with low P1 Ct and compared with the N1 Ct (n=106). The N1 Ct values ranged from 14-33, indicating the assay has a dynamic range in saliva samples that is comparable to the standard curve. We have included this information as Supplemental Figure 1.



Supplemental Figure 1. Comparison of N1 Ct in low P1 Ct saliva samples. We selected positive samples with low P1 Ct and compared with the N1 Ct (n=106). The N1 Ct values ranged from 14-33, indicating the assay has a dynamic range in saliva samples that is comparable to the standard curve.

3. *"Line 62: The word 'by' is recommended to be replaced with 'for' and Line 129: The word 'Combine' may be replaced by 'Homogenize'."* Agree. We reworded the earlier sentence and have made the second word substitution [Line 162].

4. *"Line 264: The claim by the authors 'We attempted to simulate positive saliva samples by spiking synthetic SARS-CoV-2 RNA of known concentrations into virus-free saliva but were unable to produce N1 amplification at low concentrations of RNA (Data not shown)." Was the saliva pre-heated before spiking or spiking was performed with native saliva? Possibly, RNases in the saliva degraded low number of copies of the spiked RNA."* Thank you for the insightful question. We performed the experiment with both heat-treated and non-heat treated saliva. The synthetic RNA was not detectable at low quantities in either, which we also suspect is due to residual RNases in the saliva. To test this hypothesis, we then attempted treatment with RNaseOUT, which did improve the detection of synthetic RNA. However, the interaction of the saliva RNases with naked synthetic RNA is likely different from the interaction with viral particles, even after they have been denatured by heat. We have identified positive saliva samples with Ct > 30 and external labs were able to analyze the genomic sequence data, which proves the presence of SARS-CoV-2 virus particles. We hypothesize that the viral proteins provide protection from RNA degradation in patient saliva samples, which are lacking in simulated positive samples.

5. *"Line 269: What was the uniqueness of the samples used for intra assay? Need a mention of the sample characteristics."* We agree that this is an important clarification. Each sample was obtained from a different patient, and we chose samples spanning a range of Ct (Cq) values from 18-32 to determine if viral quantity affects assay variability. We have modified the legend to reflect this [Line 439].

6. *"Line 275: 'This trend is likely due to heterogeneous distribution of viral particles within the saliva, which is more pronounced when fewer particles are present. ' Is it because the saliva samples were not thoroughly homogenized during the sample prep to break the saliva pockets and the reason of the saliva strings leading to cross contamination?"* You have raised an important point; however, we believe that homogeneity of saliva is only a small factor to the accuracy of the assay given that the intra-assay variability is fairly low, particularly in samples with Ct < 30 (Figure 5). Fully homogenizing each sample prior to robot loading is time consuming when a lab runs thousands of samples per day. While there may be small potential increase in sensitivity of the test, this would only affect 10% or fewer samples. We believe that is not worth the sacrifice in turnaround time for a large-scale screening program. Additionally, the viscoelastic properties of saliva that lead to string formation persist after homogenization. To combat irreducible cross contamination, we designated borderline positive samples as "N1 Rerun" (Figure 3) to avoid reporting false positive results.

<u>Editorial Comments</u>

1. *"Please take this opportunity to thoroughly proofread the manuscript to ensure that there are no spelling or grammar issues."* We have proofread and updated minor spelling and grammar issues throughout.

2. *"Please confirm patient availability during filming of this protocol."* Due to HIPAA requirements, we will not be able to film patients. However, we can ensure lab staff will demonstrate the procedures and collection protocols.

3. *"Please rephrase the Summary to clearly describe the protocol and its applications in complete sentences between 10-50 words."* We agree that the summary can be clarified. We have modified it per the editors' request [Lines 21-23].

4. *"Please adjust the numbering of the Protocol to follow the JoVE Instructions for Authors. For example, 1 should be followed by 1.1 and then 1.1.1 and 1.1.2 if necessary."* We have updated the manuscript to reflect the instructions.

5. *“Please define all abbreviations upon first use...”* We apologize for the oversight and have defined abbreviations throughout.
6. *“Line 83: Are Mastermix, Twist Control commercial terms? If yes, please remove them from the text.”* Mastermix is not a commercial term and is commonly used to describe collective qPCR reagents. We have removed Twist control and replaced it with the non-commercial term “synthetic RNA control.”

7. *“Please include a single line space between all the steps and ensure that the highlight is up to 3 pages of the Protocol (including headings and spacing) that identifies the essential steps of the protocol for the video, i.e., the steps that should be visualized to tell the most cohesive story of the Protocol.”* We have updated the formatting to include line spaces. We have highlighted 3.5 pages in yellow critical steps for a video entry. Many of these steps must be written in detail but are simple to explain with a visual element.

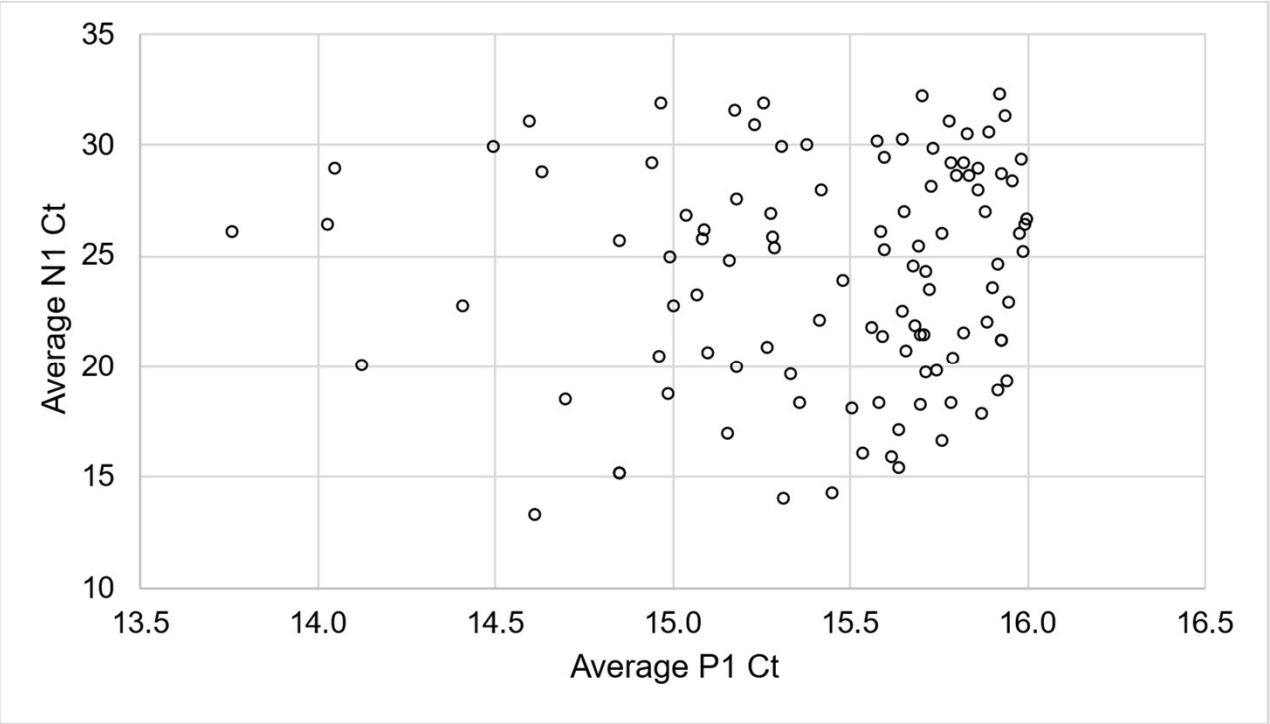
8. *“Figure 2: Please remove or blur out all commercial terms like Thermo, Griner, etc, from the image.”* We have made the requested changes to Figure 2.

9. *“Figure 4: please use the symbol µ instead of u. Please provide all numerical notations as 1 x 104 for the x-axis values.”* We have made the requested changes to Figure 4.

10. *“Figure 6: Please use 30 min and 60 min instead of 30-minute and 60-minute. Please remove the commercial term GraphPad, Prism from the legends.”* We have made the requested changes to Figure 6.

11. *“Please discuss the Critical steps within the protocol in the Discussion.”* We apologize for the oversight and have added a short paragraph to the discussion [Lines 480-484].

Click here to access/download;Supplemental File (Figures, Permissions, etc.);Supplemental Figure 1.pdf



Click here to access/download;Supplemental File (Figures, Permissions, etc.);Saliva Collection SOP.docx

Collection of Patient Saliva Samples

1. Saliva should be collected in the presence of or with assistance from a healthcare professional or laboratory technician.

2. Prior to collection, the healthcare professional or technician must have proper PPE and observed proper hand sanitation with an alcohol-based sanitizer.
3. Collection materials must be appropriately labeled with the correct identifying information (QR code, proper volume indicator).

4. Ideally, water should be avoided 10 minutes prior to collection. Other drinks, food, and nasal sprays should be avoided for half an hour before sample collection. This prevents “additives” from being present in the saliva sample.

5. The patient should begin pooling saliva in their mouth. Saliva production can be stimulated by thinking about food (favorite foods, upcoming meals, etc.) or about the saliva collection itself. **No coughing or sniffing prior to sample collection is required. Saliva samples should not contain phlegm or mucus.**

6. The patient should open the lid of the collection container (e.g., 50mL conical tube) to gently expel saliva into the container until at least 1 mL has been collected, indicated by the black marker line. (The total volume measured is to exclude any bubbles.)

7. Once at least 1 mL has been collected, securely replace the lid of the collection container.

8. Sterilize the container surface with 70% ethanol or a disinfecting wipe and place the sample in a secondary container or an appropriately labeled biohazard bag.

Supplemental File 4

Click here to access/download;Supplemental File (Figures, Permissions, etc.);YYYYMMDD_Intake_Lab_Sample2.xlsx

testID	initiated at

testID	initiated at

testID	initiated at

testID	initiated at

Click here to access/download;Supplemental File (Figures, Permissions, etc.);TEMPLATEV2-

Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				
11	46	2A				

11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
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4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
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5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
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7	74	1B
7	75	1C
7	76	2A
7	77	2B
7	78	2C
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8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
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11	92	1B
11	93	1C

11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
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2	104	1B
2	105	1C
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2	107	2B
2	108	2C
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4	111	1C
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4	114	2C
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7	124	2A
7	125	2B
7	126	2C
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8	132	2C
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11	140	1B

11	141	1C
11	142	2A
11	143	2B
11	144	2C
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1	146	1B
1	147	1C
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8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C
11	187	1A

11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	
Robot:	Cletus
Plate:	1
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
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P04	Cy5	P1	Unkn	Sample 032
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L06	Cy5	P1	Unkn	Sample 044

L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
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O05	Cy5	P1	Unkn	Sample 047
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P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056
H07	SYBR	N1	Unkn	Sample 056

H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
N07	SYBR	N1	Unkn	Sample 062
N08	Cy5	P1	Unkn	Sample 062
N08	SYBR	N1	Unkn	Sample 062
O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
B09	SYBR	N1	Unkn	Sample 066
B10	Cy5	P1	Unkn	Sample 066
B10	SYBR	N1	Unkn	Sample 066
C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067
D09	Cy5	P1	Unkn	Sample 068

D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
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F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
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H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
J09	SYBR	N1	Unkn	Sample 074
J10	Cy5	P1	Unkn	Sample 074
J10	SYBR	N1	Unkn	Sample 074
K09	Cy5	P1	Unkn	Sample 075
K09	SYBR	N1	Unkn	Sample 075
K10	Cy5	P1	Unkn	Sample 075
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L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
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N10	SYBR	N1	Unkn	Sample 078
O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079
O10	SYBR	N1	Unkn	Sample 079

P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
E11	Cy5	P1	Unkn	Sample 085
E11	SYBR	N1	Unkn	Sample 085
E12	Cy5	P1	Unkn	Sample 085
E12	SYBR	N1	Unkn	Sample 085
F11	Cy5	P1	Unkn	Sample 086
F11	SYBR	N1	Unkn	Sample 086
F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
G11	Cy5	P1	Unkn	Sample 087
G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
G12	SYBR	N1	Unkn	Sample 087
H11	Cy5	P1	Unkn	Sample 088
H11	SYBR	N1	Unkn	Sample 088
H12	Cy5	P1	Unkn	Sample 088
H12	SYBR	N1	Unkn	Sample 088
I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091
K12	Cy5	P1	Unkn	Sample 091

K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
M11	Cy5	P1	Unkn	Sample 093
M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
N11	SYBR	N1	Unkn	Sample 094
N12	Cy5	P1	Unkn	Sample 094
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O11	Cy5	P1	Unkn	Sample 095
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P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
A13	Cy5	P1	Unkn	Sample 097
A13	SYBR	N1	Unkn	Sample 097
A14	Cy5	P1	Unkn	Sample 097
A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103
G13	SYBR	N1	Unkn	Sample 103

G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
I13	SYBR	N1	Unkn	Sample 105
I14	Cy5	P1	Unkn	Sample 105
I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
J14	Cy5	P1	Unkn	Sample 106
J14	SYBR	N1	Unkn	Sample 106
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K14	SYBR	N1	Unkn	Sample 107
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N13	SYBR	N1	Unkn	Sample 110
N14	Cy5	P1	Unkn	Sample 110
N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114
C15	Cy5	P1	Unkn	Sample 115

C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
E15	SYBR	N1	Unkn	Sample 117
E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
K16	SYBR	N1	Unkn	Sample 123
L15	Cy5	P1	Unkn	Sample 124
L15	SYBR	N1	Unkn	Sample 124
L16	Cy5	P1	Unkn	Sample 124
L16	SYBR	N1	Unkn	Sample 124
M15	Cy5	P1	Unkn	Sample 125
M15	SYBR	N1	Unkn	Sample 125
M16	Cy5	P1	Unkn	Sample 125
M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126
N16	SYBR	N1	Unkn	Sample 126

O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
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H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138
J18	Cy5	P1	Unkn	Sample 138

J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
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M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
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N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
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E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150
F19	SYBR	N1	Unkn	Sample 150

F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
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K20	Cy5	P1	Unkn	Sample 155
K20	SYBR	N1	Unkn	Sample 155
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L20	SYBR	N1	Unkn	Sample 156
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N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161
B21	Cy5	P1	Unkn	Sample 162

B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
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E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
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G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
I21	SYBR	N1	Unkn	Sample 169
I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
J22	Cy5	P1	Unkn	Sample 170
J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173
M22	SYBR	N1	Unkn	Sample 173

N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
O21	SYBR	N1	Unkn	Sample 175
O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
F23	SYBR	N1	Unkn	Sample 182
F24	Cy5	P1	Unkn	Sample 182
F24	SYBR	N1	Unkn	Sample 182
G23	Cy5	P1	Unkn	Sample 183
G23	SYBR	N1	Unkn	Sample 183
G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185
I24	Cy5	P1	Unkn	Sample 185

	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

Cq Fill In Data Interp

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				
11	46	2A				

11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
4	61	1A
4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
5	67	1A
5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
7	73	1A
7	74	1B
7	75	1C
7	76	2A
7	77	2B
7	78	2C
8	79	1A
8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
11	91	1A
11	92	1B
11	93	1C

11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
2	103	1A
2	104	1B
2	105	1C
2	106	2A
2	107	2B
2	108	2C
4	109	1A
4	110	1B
4	111	1C
4	112	2A
4	113	2B
4	114	2C
5	115	1A
5	116	1B
5	117	1C
5	118	2A
5	119	2B
5	120	2C
7	121	1A
7	122	1B
7	123	1C
7	124	2A
7	125	2B
7	126	2C
8	127	1A
8	128	1B
8	129	1C
8	130	2A
8	131	2B
8	132	2C
10	133	1A
10	134	1B
10	135	1C
10	136	2A
10	137	2B
10	138	2C
11	139	1A
11	140	1B

11	141	1C
11	142	2A
11	143	2B
11	144	2C
1	145	1A
1	146	1B
1	147	1C
1	148	2A
1	149	2B
1	150	2C
2	151	1A
2	152	1B
2	153	1C
2	154	2A
2	155	2B
2	156	2C
4	157	1A
4	158	1B
4	159	1C
4	160	2A
4	161	2B
4	162	2C
5	163	1A
5	164	1B
5	165	1C
5	166	2A
5	167	2B
5	168	2C
7	169	1A
7	170	1B
7	171	1C
7	172	2A
7	173	2B
7	174	2C
8	175	1A
8	176	1B
8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C
11	187	1A

11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	0
Robot:	Cletus
Plate:	2
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
	B02	Cy5	P1	Unkn	Sample 002
	B02	SYBR	N1	Unkn	Sample 002
	C01	Cy5	P1	Unkn	Sample 003
	C01	SYBR	N1	Unkn	Sample 003
	C02	Cy5	P1	Unkn	Sample 003
	C02	SYBR	N1	Unkn	Sample 003
	D01	Cy5	P1	Unkn	Sample 004
	D01	SYBR	N1	Unkn	Sample 004
	D02	Cy5	P1	Unkn	Sample 004
	D02	SYBR	N1	Unkn	Sample 004
	E01	Cy5	P1	Unkn	Sample 005
	E01	SYBR	N1	Unkn	Sample 005
	E02	Cy5	P1	Unkn	Sample 005
	E02	SYBR	N1	Unkn	Sample 005
	F01	Cy5	P1	Unkn	Sample 006
	F01	SYBR	N1	Unkn	Sample 006
	F02	Cy5	P1	Unkn	Sample 006
	F02	SYBR	N1	Unkn	Sample 006
	G01	Cy5	P1	Unkn	Sample 007
	G01	SYBR	N1	Unkn	Sample 007
	G02	Cy5	P1	Unkn	Sample 007
	G02	SYBR	N1	Unkn	Sample 007
	H01	Cy5	P1	Unkn	Sample 008
	H01	SYBR	N1	Unkn	Sample 008
	H02	Cy5	P1	Unkn	Sample 008
	H02	SYBR	N1	Unkn	Sample 008
	I01	Cy5	P1	Unkn	Sample 009
	I01	SYBR	N1	Unkn	Sample 009

I02	Cy5	P1	Unkn	Sample 009
I02	SYBR	N1	Unkn	Sample 009
J01	Cy5	P1	Unkn	Sample 010
J01	SYBR	N1	Unkn	Sample 010
J02	Cy5	P1	Unkn	Sample 010
J02	SYBR	N1	Unkn	Sample 010
K01	Cy5	P1	Unkn	Sample 011
K01	SYBR	N1	Unkn	Sample 011
K02	Cy5	P1	Unkn	Sample 011
K02	SYBR	N1	Unkn	Sample 011
L01	Cy5	P1	Unkn	Sample 012
L01	SYBR	N1	Unkn	Sample 012
L02	Cy5	P1	Unkn	Sample 012
L02	SYBR	N1	Unkn	Sample 012
M01	Cy5	P1	Unkn	Sample 013
M01	SYBR	N1	Unkn	Sample 013
M02	Cy5	P1	Unkn	Sample 013
M02	SYBR	N1	Unkn	Sample 013
N01	Cy5	P1	Unkn	Sample 014
N01	SYBR	N1	Unkn	Sample 014
N02	Cy5	P1	Unkn	Sample 014
N02	SYBR	N1	Unkn	Sample 014
O01	Cy5	P1	Unkn	Sample 015
O01	SYBR	N1	Unkn	Sample 015
O02	Cy5	P1	Unkn	Sample 015
O02	SYBR	N1	Unkn	Sample 015
P01	Cy5	P1	Unkn	Sample 016
P01	SYBR	N1	Unkn	Sample 016
P02	Cy5	P1	Unkn	Sample 016
P02	SYBR	N1	Unkn	Sample 016
A03	Cy5	P1	Unkn	Sample 017
A03	SYBR	N1	Unkn	Sample 017
A04	Cy5	P1	Unkn	Sample 017
A04	SYBR	N1	Unkn	Sample 017
B03	Cy5	P1	Unkn	Sample 018
B03	SYBR	N1	Unkn	Sample 018
B04	Cy5	P1	Unkn	Sample 018
B04	SYBR	N1	Unkn	Sample 018
C03	Cy5	P1	Unkn	Sample 019
C03	SYBR	N1	Unkn	Sample 019
C04	Cy5	P1	Unkn	Sample 019
C04	SYBR	N1	Unkn	Sample 019
D03	Cy5	P1	Unkn	Sample 020
D03	SYBR	N1	Unkn	Sample 020
D04	Cy5	P1	Unkn	Sample 020
D04	SYBR	N1	Unkn	Sample 020
E03	Cy5	P1	Unkn	Sample 021

E03	SYBR	N1	Unkn	Sample 021
E04	Cy5	P1	Unkn	Sample 021
E04	SYBR	N1	Unkn	Sample 021
F03	Cy5	P1	Unkn	Sample 022
F03	SYBR	N1	Unkn	Sample 022
F04	Cy5	P1	Unkn	Sample 022
F04	SYBR	N1	Unkn	Sample 022
G03	Cy5	P1	Unkn	Sample 023
G03	SYBR	N1	Unkn	Sample 023
G04	Cy5	P1	Unkn	Sample 023
G04	SYBR	N1	Unkn	Sample 023
H03	Cy5	P1	Unkn	Sample 024
H03	SYBR	N1	Unkn	Sample 024
H04	Cy5	P1	Unkn	Sample 024
H04	SYBR	N1	Unkn	Sample 024
I03	Cy5	P1	Unkn	Sample 025
I03	SYBR	N1	Unkn	Sample 025
I04	Cy5	P1	Unkn	Sample 025
I04	SYBR	N1	Unkn	Sample 025
J03	Cy5	P1	Unkn	Sample 026
J03	SYBR	N1	Unkn	Sample 026
J04	Cy5	P1	Unkn	Sample 026
J04	SYBR	N1	Unkn	Sample 026
K03	Cy5	P1	Unkn	Sample 027
K03	SYBR	N1	Unkn	Sample 027
K04	Cy5	P1	Unkn	Sample 027
K04	SYBR	N1	Unkn	Sample 027
L03	Cy5	P1	Unkn	Sample 028
L03	SYBR	N1	Unkn	Sample 028
L04	Cy5	P1	Unkn	Sample 028
L04	SYBR	N1	Unkn	Sample 028
M03	Cy5	P1	Unkn	Sample 029
M03	SYBR	N1	Unkn	Sample 029
M04	Cy5	P1	Unkn	Sample 029
M04	SYBR	N1	Unkn	Sample 029
N03	Cy5	P1	Unkn	Sample 030
N03	SYBR	N1	Unkn	Sample 030
N04	Cy5	P1	Unkn	Sample 030
N04	SYBR	N1	Unkn	Sample 030
O03	Cy5	P1	Unkn	Sample 031
O03	SYBR	N1	Unkn	Sample 031
O04	Cy5	P1	Unkn	Sample 031
O04	SYBR	N1	Unkn	Sample 031
P03	Cy5	P1	Unkn	Sample 032
P03	SYBR	N1	Unkn	Sample 032
P04	Cy5	P1	Unkn	Sample 032
P04	SYBR	N1	Unkn	Sample 032

A05	Cy5	P1	Unkn	Sample 033
A05	SYBR	N1	Unkn	Sample 033
A06	Cy5	P1	Unkn	Sample 033
A06	SYBR	N1	Unkn	Sample 033
B05	Cy5	P1	Unkn	Sample 034
B05	SYBR	N1	Unkn	Sample 034
B06	Cy5	P1	Unkn	Sample 034
B06	SYBR	N1	Unkn	Sample 034
C05	Cy5	P1	Unkn	Sample 035
C05	SYBR	N1	Unkn	Sample 035
C06	Cy5	P1	Unkn	Sample 035
C06	SYBR	N1	Unkn	Sample 035
D05	Cy5	P1	Unkn	Sample 036
D05	SYBR	N1	Unkn	Sample 036
D06	Cy5	P1	Unkn	Sample 036
D06	SYBR	N1	Unkn	Sample 036
E05	Cy5	P1	Unkn	Sample 037
E05	SYBR	N1	Unkn	Sample 037
E06	Cy5	P1	Unkn	Sample 037
E06	SYBR	N1	Unkn	Sample 037
F05	Cy5	P1	Unkn	Sample 038
F05	SYBR	N1	Unkn	Sample 038
F06	Cy5	P1	Unkn	Sample 038
F06	SYBR	N1	Unkn	Sample 038
G05	Cy5	P1	Unkn	Sample 039
G05	SYBR	N1	Unkn	Sample 039
G06	Cy5	P1	Unkn	Sample 039
G06	SYBR	N1	Unkn	Sample 039
H05	Cy5	P1	Unkn	Sample 040
H05	SYBR	N1	Unkn	Sample 040
H06	Cy5	P1	Unkn	Sample 040
H06	SYBR	N1	Unkn	Sample 040
I05	Cy5	P1	Unkn	Sample 041
I05	SYBR	N1	Unkn	Sample 041
I06	Cy5	P1	Unkn	Sample 041
I06	SYBR	N1	Unkn	Sample 041
J05	Cy5	P1	Unkn	Sample 042
J05	SYBR	N1	Unkn	Sample 042
J06	Cy5	P1	Unkn	Sample 042
J06	SYBR	N1	Unkn	Sample 042
K05	Cy5	P1	Unkn	Sample 043
K05	SYBR	N1	Unkn	Sample 043
K06	Cy5	P1	Unkn	Sample 043
K06	SYBR	N1	Unkn	Sample 043
L05	Cy5	P1	Unkn	Sample 044
L05	SYBR	N1	Unkn	Sample 044
L06	Cy5	P1	Unkn	Sample 044

L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
M05	SYBR	N1	Unkn	Sample 045
M06	Cy5	P1	Unkn	Sample 045
M06	SYBR	N1	Unkn	Sample 045
N05	Cy5	P1	Unkn	Sample 046
N05	SYBR	N1	Unkn	Sample 046
N06	Cy5	P1	Unkn	Sample 046
N06	SYBR	N1	Unkn	Sample 046
O05	Cy5	P1	Unkn	Sample 047
O05	SYBR	N1	Unkn	Sample 047
O06	Cy5	P1	Unkn	Sample 047
O06	SYBR	N1	Unkn	Sample 047
P05	Cy5	P1	Unkn	Sample 048
P05	SYBR	N1	Unkn	Sample 048
P06	Cy5	P1	Unkn	Sample 048
P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056
H07	SYBR	N1	Unkn	Sample 056

H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
N07	SYBR	N1	Unkn	Sample 062
N08	Cy5	P1	Unkn	Sample 062
N08	SYBR	N1	Unkn	Sample 062
O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
B09	SYBR	N1	Unkn	Sample 066
B10	Cy5	P1	Unkn	Sample 066
B10	SYBR	N1	Unkn	Sample 066
C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067
D09	Cy5	P1	Unkn	Sample 068

D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
E10	SYBR	N1	Unkn	Sample 069
F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
H09	Cy5	P1	Unkn	Sample 072
H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
J09	SYBR	N1	Unkn	Sample 074
J10	Cy5	P1	Unkn	Sample 074
J10	SYBR	N1	Unkn	Sample 074
K09	Cy5	P1	Unkn	Sample 075
K09	SYBR	N1	Unkn	Sample 075
K10	Cy5	P1	Unkn	Sample 075
K10	SYBR	N1	Unkn	Sample 075
L09	Cy5	P1	Unkn	Sample 076
L09	SYBR	N1	Unkn	Sample 076
L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
N09	SYBR	N1	Unkn	Sample 078
N10	Cy5	P1	Unkn	Sample 078
N10	SYBR	N1	Unkn	Sample 078
O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079
O10	SYBR	N1	Unkn	Sample 079

P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
E11	Cy5	P1	Unkn	Sample 085
E11	SYBR	N1	Unkn	Sample 085
E12	Cy5	P1	Unkn	Sample 085
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F11	SYBR	N1	Unkn	Sample 086
F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
G11	Cy5	P1	Unkn	Sample 087
G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
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I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091
K12	Cy5	P1	Unkn	Sample 091

K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
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M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
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O11	Cy5	P1	Unkn	Sample 095
O11	SYBR	N1	Unkn	Sample 095
O12	Cy5	P1	Unkn	Sample 095
O12	SYBR	N1	Unkn	Sample 095
P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
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A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103
G13	SYBR	N1	Unkn	Sample 103

G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
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I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
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J14	SYBR	N1	Unkn	Sample 106
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K14	Cy5	P1	Unkn	Sample 107
K14	SYBR	N1	Unkn	Sample 107
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L13	SYBR	N1	Unkn	Sample 108
L14	Cy5	P1	Unkn	Sample 108
L14	SYBR	N1	Unkn	Sample 108
M13	Cy5	P1	Unkn	Sample 109
M13	SYBR	N1	Unkn	Sample 109
M14	Cy5	P1	Unkn	Sample 109
M14	SYBR	N1	Unkn	Sample 109
N13	Cy5	P1	Unkn	Sample 110
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N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114
C15	Cy5	P1	Unkn	Sample 115

C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
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E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
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L16	SYBR	N1	Unkn	Sample 124
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M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126
N16	SYBR	N1	Unkn	Sample 126

O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
E17	Cy5	P1	Unkn	Sample 133
E17	SYBR	N1	Unkn	Sample 133
E18	Cy5	P1	Unkn	Sample 133
E18	SYBR	N1	Unkn	Sample 133
F17	Cy5	P1	Unkn	Sample 134
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G18	Cy5	P1	Unkn	Sample 135
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H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138
J18	Cy5	P1	Unkn	Sample 138

J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
M17	SYBR	N1	Unkn	Sample 141
M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
N17	SYBR	N1	Unkn	Sample 142
N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
E19	Cy5	P1	Unkn	Sample 149
E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150
F19	SYBR	N1	Unkn	Sample 150

F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
J20	SYBR	N1	Unkn	Sample 154
K19	Cy5	P1	Unkn	Sample 155
K19	SYBR	N1	Unkn	Sample 155
K20	Cy5	P1	Unkn	Sample 155
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L20	SYBR	N1	Unkn	Sample 156
M19	Cy5	P1	Unkn	Sample 157
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M20	Cy5	P1	Unkn	Sample 157
M20	SYBR	N1	Unkn	Sample 157
N19	Cy5	P1	Unkn	Sample 158
N19	SYBR	N1	Unkn	Sample 158
N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161
B21	Cy5	P1	Unkn	Sample 162

B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
E21	Cy5	P1	Unkn	Sample 165
E21	SYBR	N1	Unkn	Sample 165
E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
G21	Cy5	P1	Unkn	Sample 167
G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
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I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
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J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173
M22	SYBR	N1	Unkn	Sample 173

N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
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O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
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G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185
I24	Cy5	P1	Unkn	Sample 185

	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

Cq Fill In Data Interp

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Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				
11	46	2A				

11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
4	61	1A
4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
5	67	1A
5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
7	73	1A
7	74	1B
7	75	1C
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7	78	2C
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8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
11	91	1A
11	92	1B
11	93	1C

11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
2	103	1A
2	104	1B
2	105	1C
2	106	2A
2	107	2B
2	108	2C
4	109	1A
4	110	1B
4	111	1C
4	112	2A
4	113	2B
4	114	2C
5	115	1A
5	116	1B
5	117	1C
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5	120	2C
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7	122	1B
7	123	1C
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7	125	2B
7	126	2C
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8	132	2C
10	133	1A
10	134	1B
10	135	1C
10	136	2A
10	137	2B
10	138	2C
11	139	1A
11	140	1B

11	141	1C
11	142	2A
11	143	2B
11	144	2C
1	145	1A
1	146	1B
1	147	1C
1	148	2A
1	149	2B
1	150	2C
2	151	1A
2	152	1B
2	153	1C
2	154	2A
2	155	2B
2	156	2C
4	157	1A
4	158	1B
4	159	1C
4	160	2A
4	161	2B
4	162	2C
5	163	1A
5	164	1B
5	165	1C
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5	167	2B
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7	170	1B
7	171	1C
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7	173	2B
7	174	2C
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8	176	1B
8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C
11	187	1A

11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	0
Robot:	Cletus
Plate:	3
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
	B02	Cy5	P1	Unkn	Sample 002
	B02	SYBR	N1	Unkn	Sample 002
	C01	Cy5	P1	Unkn	Sample 003
	C01	SYBR	N1	Unkn	Sample 003
	C02	Cy5	P1	Unkn	Sample 003
	C02	SYBR	N1	Unkn	Sample 003
	D01	Cy5	P1	Unkn	Sample 004
	D01	SYBR	N1	Unkn	Sample 004
	D02	Cy5	P1	Unkn	Sample 004
	D02	SYBR	N1	Unkn	Sample 004
	E01	Cy5	P1	Unkn	Sample 005
	E01	SYBR	N1	Unkn	Sample 005
	E02	Cy5	P1	Unkn	Sample 005
	E02	SYBR	N1	Unkn	Sample 005
	F01	Cy5	P1	Unkn	Sample 006
	F01	SYBR	N1	Unkn	Sample 006
	F02	Cy5	P1	Unkn	Sample 006
	F02	SYBR	N1	Unkn	Sample 006
	G01	Cy5	P1	Unkn	Sample 007
	G01	SYBR	N1	Unkn	Sample 007
	G02	Cy5	P1	Unkn	Sample 007
	G02	SYBR	N1	Unkn	Sample 007
	H01	Cy5	P1	Unkn	Sample 008
	H01	SYBR	N1	Unkn	Sample 008
	H02	Cy5	P1	Unkn	Sample 008
	H02	SYBR	N1	Unkn	Sample 008
	I01	Cy5	P1	Unkn	Sample 009
	I01	SYBR	N1	Unkn	Sample 009

I02	Cy5	P1	Unkn	Sample 009
I02	SYBR	N1	Unkn	Sample 009
J01	Cy5	P1	Unkn	Sample 010
J01	SYBR	N1	Unkn	Sample 010
J02	Cy5	P1	Unkn	Sample 010
J02	SYBR	N1	Unkn	Sample 010
K01	Cy5	P1	Unkn	Sample 011
K01	SYBR	N1	Unkn	Sample 011
K02	Cy5	P1	Unkn	Sample 011
K02	SYBR	N1	Unkn	Sample 011
L01	Cy5	P1	Unkn	Sample 012
L01	SYBR	N1	Unkn	Sample 012
L02	Cy5	P1	Unkn	Sample 012
L02	SYBR	N1	Unkn	Sample 012
M01	Cy5	P1	Unkn	Sample 013
M01	SYBR	N1	Unkn	Sample 013
M02	Cy5	P1	Unkn	Sample 013
M02	SYBR	N1	Unkn	Sample 013
N01	Cy5	P1	Unkn	Sample 014
N01	SYBR	N1	Unkn	Sample 014
N02	Cy5	P1	Unkn	Sample 014
N02	SYBR	N1	Unkn	Sample 014
O01	Cy5	P1	Unkn	Sample 015
O01	SYBR	N1	Unkn	Sample 015
O02	Cy5	P1	Unkn	Sample 015
O02	SYBR	N1	Unkn	Sample 015
P01	Cy5	P1	Unkn	Sample 016
P01	SYBR	N1	Unkn	Sample 016
P02	Cy5	P1	Unkn	Sample 016
P02	SYBR	N1	Unkn	Sample 016
A03	Cy5	P1	Unkn	Sample 017
A03	SYBR	N1	Unkn	Sample 017
A04	Cy5	P1	Unkn	Sample 017
A04	SYBR	N1	Unkn	Sample 017
B03	Cy5	P1	Unkn	Sample 018
B03	SYBR	N1	Unkn	Sample 018
B04	Cy5	P1	Unkn	Sample 018
B04	SYBR	N1	Unkn	Sample 018
C03	Cy5	P1	Unkn	Sample 019
C03	SYBR	N1	Unkn	Sample 019
C04	Cy5	P1	Unkn	Sample 019
C04	SYBR	N1	Unkn	Sample 019
D03	Cy5	P1	Unkn	Sample 020
D03	SYBR	N1	Unkn	Sample 020
D04	Cy5	P1	Unkn	Sample 020
D04	SYBR	N1	Unkn	Sample 020
E03	Cy5	P1	Unkn	Sample 021

E03	SYBR	N1	Unkn	Sample 021
E04	Cy5	P1	Unkn	Sample 021
E04	SYBR	N1	Unkn	Sample 021
F03	Cy5	P1	Unkn	Sample 022
F03	SYBR	N1	Unkn	Sample 022
F04	Cy5	P1	Unkn	Sample 022
F04	SYBR	N1	Unkn	Sample 022
G03	Cy5	P1	Unkn	Sample 023
G03	SYBR	N1	Unkn	Sample 023
G04	Cy5	P1	Unkn	Sample 023
G04	SYBR	N1	Unkn	Sample 023
H03	Cy5	P1	Unkn	Sample 024
H03	SYBR	N1	Unkn	Sample 024
H04	Cy5	P1	Unkn	Sample 024
H04	SYBR	N1	Unkn	Sample 024
I03	Cy5	P1	Unkn	Sample 025
I03	SYBR	N1	Unkn	Sample 025
I04	Cy5	P1	Unkn	Sample 025
I04	SYBR	N1	Unkn	Sample 025
J03	Cy5	P1	Unkn	Sample 026
J03	SYBR	N1	Unkn	Sample 026
J04	Cy5	P1	Unkn	Sample 026
J04	SYBR	N1	Unkn	Sample 026
K03	Cy5	P1	Unkn	Sample 027
K03	SYBR	N1	Unkn	Sample 027
K04	Cy5	P1	Unkn	Sample 027
K04	SYBR	N1	Unkn	Sample 027
L03	Cy5	P1	Unkn	Sample 028
L03	SYBR	N1	Unkn	Sample 028
L04	Cy5	P1	Unkn	Sample 028
L04	SYBR	N1	Unkn	Sample 028
M03	Cy5	P1	Unkn	Sample 029
M03	SYBR	N1	Unkn	Sample 029
M04	Cy5	P1	Unkn	Sample 029
M04	SYBR	N1	Unkn	Sample 029
N03	Cy5	P1	Unkn	Sample 030
N03	SYBR	N1	Unkn	Sample 030
N04	Cy5	P1	Unkn	Sample 030
N04	SYBR	N1	Unkn	Sample 030
O03	Cy5	P1	Unkn	Sample 031
O03	SYBR	N1	Unkn	Sample 031
O04	Cy5	P1	Unkn	Sample 031
O04	SYBR	N1	Unkn	Sample 031
P03	Cy5	P1	Unkn	Sample 032
P03	SYBR	N1	Unkn	Sample 032
P04	Cy5	P1	Unkn	Sample 032
P04	SYBR	N1	Unkn	Sample 032

A05	Cy5	P1	Unkn	Sample 033
A05	SYBR	N1	Unkn	Sample 033
A06	Cy5	P1	Unkn	Sample 033
A06	SYBR	N1	Unkn	Sample 033
B05	Cy5	P1	Unkn	Sample 034
B05	SYBR	N1	Unkn	Sample 034
B06	Cy5	P1	Unkn	Sample 034
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C05	Cy5	P1	Unkn	Sample 035
C05	SYBR	N1	Unkn	Sample 035
C06	Cy5	P1	Unkn	Sample 035
C06	SYBR	N1	Unkn	Sample 035
D05	Cy5	P1	Unkn	Sample 036
D05	SYBR	N1	Unkn	Sample 036
D06	Cy5	P1	Unkn	Sample 036
D06	SYBR	N1	Unkn	Sample 036
E05	Cy5	P1	Unkn	Sample 037
E05	SYBR	N1	Unkn	Sample 037
E06	Cy5	P1	Unkn	Sample 037
E06	SYBR	N1	Unkn	Sample 037
F05	Cy5	P1	Unkn	Sample 038
F05	SYBR	N1	Unkn	Sample 038
F06	Cy5	P1	Unkn	Sample 038
F06	SYBR	N1	Unkn	Sample 038
G05	Cy5	P1	Unkn	Sample 039
G05	SYBR	N1	Unkn	Sample 039
G06	Cy5	P1	Unkn	Sample 039
G06	SYBR	N1	Unkn	Sample 039
H05	Cy5	P1	Unkn	Sample 040
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H06	Cy5	P1	Unkn	Sample 040
H06	SYBR	N1	Unkn	Sample 040
I05	Cy5	P1	Unkn	Sample 041
I05	SYBR	N1	Unkn	Sample 041
I06	Cy5	P1	Unkn	Sample 041
I06	SYBR	N1	Unkn	Sample 041
J05	Cy5	P1	Unkn	Sample 042
J05	SYBR	N1	Unkn	Sample 042
J06	Cy5	P1	Unkn	Sample 042
J06	SYBR	N1	Unkn	Sample 042
K05	Cy5	P1	Unkn	Sample 043
K05	SYBR	N1	Unkn	Sample 043
K06	Cy5	P1	Unkn	Sample 043
K06	SYBR	N1	Unkn	Sample 043
L05	Cy5	P1	Unkn	Sample 044
L05	SYBR	N1	Unkn	Sample 044
L06	Cy5	P1	Unkn	Sample 044

L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
M05	SYBR	N1	Unkn	Sample 045
M06	Cy5	P1	Unkn	Sample 045
M06	SYBR	N1	Unkn	Sample 045
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N06	Cy5	P1	Unkn	Sample 046
N06	SYBR	N1	Unkn	Sample 046
O05	Cy5	P1	Unkn	Sample 047
O05	SYBR	N1	Unkn	Sample 047
O06	Cy5	P1	Unkn	Sample 047
O06	SYBR	N1	Unkn	Sample 047
P05	Cy5	P1	Unkn	Sample 048
P05	SYBR	N1	Unkn	Sample 048
P06	Cy5	P1	Unkn	Sample 048
P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056
H07	SYBR	N1	Unkn	Sample 056

H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
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O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
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C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067
D09	Cy5	P1	Unkn	Sample 068

D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
E10	SYBR	N1	Unkn	Sample 069
F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
H09	Cy5	P1	Unkn	Sample 072
H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
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L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
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O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079
O10	SYBR	N1	Unkn	Sample 079

P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
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E12	Cy5	P1	Unkn	Sample 085
E12	SYBR	N1	Unkn	Sample 085
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F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
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G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
G12	SYBR	N1	Unkn	Sample 087
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H12	Cy5	P1	Unkn	Sample 088
H12	SYBR	N1	Unkn	Sample 088
I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091
K12	Cy5	P1	Unkn	Sample 091

K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
M11	Cy5	P1	Unkn	Sample 093
M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
N11	SYBR	N1	Unkn	Sample 094
N12	Cy5	P1	Unkn	Sample 094
N12	SYBR	N1	Unkn	Sample 094
O11	Cy5	P1	Unkn	Sample 095
O11	SYBR	N1	Unkn	Sample 095
O12	Cy5	P1	Unkn	Sample 095
O12	SYBR	N1	Unkn	Sample 095
P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
A13	Cy5	P1	Unkn	Sample 097
A13	SYBR	N1	Unkn	Sample 097
A14	Cy5	P1	Unkn	Sample 097
A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103
G13	SYBR	N1	Unkn	Sample 103

G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
I13	SYBR	N1	Unkn	Sample 105
I14	Cy5	P1	Unkn	Sample 105
I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
J14	Cy5	P1	Unkn	Sample 106
J14	SYBR	N1	Unkn	Sample 106
K13	Cy5	P1	Unkn	Sample 107
K13	SYBR	N1	Unkn	Sample 107
K14	Cy5	P1	Unkn	Sample 107
K14	SYBR	N1	Unkn	Sample 107
L13	Cy5	P1	Unkn	Sample 108
L13	SYBR	N1	Unkn	Sample 108
L14	Cy5	P1	Unkn	Sample 108
L14	SYBR	N1	Unkn	Sample 108
M13	Cy5	P1	Unkn	Sample 109
M13	SYBR	N1	Unkn	Sample 109
M14	Cy5	P1	Unkn	Sample 109
M14	SYBR	N1	Unkn	Sample 109
N13	Cy5	P1	Unkn	Sample 110
N13	SYBR	N1	Unkn	Sample 110
N14	Cy5	P1	Unkn	Sample 110
N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114
C15	Cy5	P1	Unkn	Sample 115

C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
E15	SYBR	N1	Unkn	Sample 117
E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
K16	SYBR	N1	Unkn	Sample 123
L15	Cy5	P1	Unkn	Sample 124
L15	SYBR	N1	Unkn	Sample 124
L16	Cy5	P1	Unkn	Sample 124
L16	SYBR	N1	Unkn	Sample 124
M15	Cy5	P1	Unkn	Sample 125
M15	SYBR	N1	Unkn	Sample 125
M16	Cy5	P1	Unkn	Sample 125
M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126
N16	SYBR	N1	Unkn	Sample 126

O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
E17	Cy5	P1	Unkn	Sample 133
E17	SYBR	N1	Unkn	Sample 133
E18	Cy5	P1	Unkn	Sample 133
E18	SYBR	N1	Unkn	Sample 133
F17	Cy5	P1	Unkn	Sample 134
F17	SYBR	N1	Unkn	Sample 134
F18	Cy5	P1	Unkn	Sample 134
F18	SYBR	N1	Unkn	Sample 134
G17	Cy5	P1	Unkn	Sample 135
G17	SYBR	N1	Unkn	Sample 135
G18	Cy5	P1	Unkn	Sample 135
G18	SYBR	N1	Unkn	Sample 135
H17	Cy5	P1	Unkn	Sample 136
H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138
J18	Cy5	P1	Unkn	Sample 138

J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
M17	SYBR	N1	Unkn	Sample 141
M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
N17	SYBR	N1	Unkn	Sample 142
N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
E19	Cy5	P1	Unkn	Sample 149
E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150
F19	SYBR	N1	Unkn	Sample 150

F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
J20	SYBR	N1	Unkn	Sample 154
K19	Cy5	P1	Unkn	Sample 155
K19	SYBR	N1	Unkn	Sample 155
K20	Cy5	P1	Unkn	Sample 155
K20	SYBR	N1	Unkn	Sample 155
L19	Cy5	P1	Unkn	Sample 156
L19	SYBR	N1	Unkn	Sample 156
L20	Cy5	P1	Unkn	Sample 156
L20	SYBR	N1	Unkn	Sample 156
M19	Cy5	P1	Unkn	Sample 157
M19	SYBR	N1	Unkn	Sample 157
M20	Cy5	P1	Unkn	Sample 157
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N19	Cy5	P1	Unkn	Sample 158
N19	SYBR	N1	Unkn	Sample 158
N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161
B21	Cy5	P1	Unkn	Sample 162

B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
E21	Cy5	P1	Unkn	Sample 165
E21	SYBR	N1	Unkn	Sample 165
E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
G21	Cy5	P1	Unkn	Sample 167
G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
I21	SYBR	N1	Unkn	Sample 169
I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
J22	Cy5	P1	Unkn	Sample 170
J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173
M22	SYBR	N1	Unkn	Sample 173

N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
O21	SYBR	N1	Unkn	Sample 175
O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
F23	SYBR	N1	Unkn	Sample 182
F24	Cy5	P1	Unkn	Sample 182
F24	SYBR	N1	Unkn	Sample 182
G23	Cy5	P1	Unkn	Sample 183
G23	SYBR	N1	Unkn	Sample 183
G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185
I24	Cy5	P1	Unkn	Sample 185

	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

Cq Fill In Data Interp

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

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[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				
11	46	2A				

11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
4	61	1A
4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
5	67	1A
5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
7	73	1A
7	74	1B
7	75	1C
7	76	2A
7	77	2B
7	78	2C
8	79	1A
8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
11	91	1A
11	92	1B
11	93	1C

11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
2	103	1A
2	104	1B
2	105	1C
2	106	2A
2	107	2B
2	108	2C
4	109	1A
4	110	1B
4	111	1C
4	112	2A
4	113	2B
4	114	2C
5	115	1A
5	116	1B
5	117	1C
5	118	2A
5	119	2B
5	120	2C
7	121	1A
7	122	1B
7	123	1C
7	124	2A
7	125	2B
7	126	2C
8	127	1A
8	128	1B
8	129	1C
8	130	2A
8	131	2B
8	132	2C
10	133	1A
10	134	1B
10	135	1C
10	136	2A
10	137	2B
10	138	2C
11	139	1A
11	140	1B

11	141	1C
11	142	2A
11	143	2B
11	144	2C
1	145	1A
1	146	1B
1	147	1C
1	148	2A
1	149	2B
1	150	2C
2	151	1A
2	152	1B
2	153	1C
2	154	2A
2	155	2B
2	156	2C
4	157	1A
4	158	1B
4	159	1C
4	160	2A
4	161	2B
4	162	2C
5	163	1A
5	164	1B
5	165	1C
5	166	2A
5	167	2B
5	168	2C
7	169	1A
7	170	1B
7	171	1C
7	172	2A
7	173	2B
7	174	2C
8	175	1A
8	176	1B
8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C
11	187	1A

11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	0
Robot:	Cletus
Plate:	4
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
	B02	Cy5	P1	Unkn	Sample 002
	B02	SYBR	N1	Unkn	Sample 002
	C01	Cy5	P1	Unkn	Sample 003
	C01	SYBR	N1	Unkn	Sample 003
	C02	Cy5	P1	Unkn	Sample 003
	C02	SYBR	N1	Unkn	Sample 003
	D01	Cy5	P1	Unkn	Sample 004
	D01	SYBR	N1	Unkn	Sample 004
	D02	Cy5	P1	Unkn	Sample 004
	D02	SYBR	N1	Unkn	Sample 004
	E01	Cy5	P1	Unkn	Sample 005
	E01	SYBR	N1	Unkn	Sample 005
	E02	Cy5	P1	Unkn	Sample 005
	E02	SYBR	N1	Unkn	Sample 005
	F01	Cy5	P1	Unkn	Sample 006
	F01	SYBR	N1	Unkn	Sample 006
	F02	Cy5	P1	Unkn	Sample 006
	F02	SYBR	N1	Unkn	Sample 006
	G01	Cy5	P1	Unkn	Sample 007
	G01	SYBR	N1	Unkn	Sample 007
	G02	Cy5	P1	Unkn	Sample 007
	G02	SYBR	N1	Unkn	Sample 007
	H01	Cy5	P1	Unkn	Sample 008
	H01	SYBR	N1	Unkn	Sample 008
	H02	Cy5	P1	Unkn	Sample 008
	H02	SYBR	N1	Unkn	Sample 008
	I01	Cy5	P1	Unkn	Sample 009
	I01	SYBR	N1	Unkn	Sample 009

I02	Cy5	P1	Unkn	Sample 009
I02	SYBR	N1	Unkn	Sample 009
J01	Cy5	P1	Unkn	Sample 010
J01	SYBR	N1	Unkn	Sample 010
J02	Cy5	P1	Unkn	Sample 010
J02	SYBR	N1	Unkn	Sample 010
K01	Cy5	P1	Unkn	Sample 011
K01	SYBR	N1	Unkn	Sample 011
K02	Cy5	P1	Unkn	Sample 011
K02	SYBR	N1	Unkn	Sample 011
L01	Cy5	P1	Unkn	Sample 012
L01	SYBR	N1	Unkn	Sample 012
L02	Cy5	P1	Unkn	Sample 012
L02	SYBR	N1	Unkn	Sample 012
M01	Cy5	P1	Unkn	Sample 013
M01	SYBR	N1	Unkn	Sample 013
M02	Cy5	P1	Unkn	Sample 013
M02	SYBR	N1	Unkn	Sample 013
N01	Cy5	P1	Unkn	Sample 014
N01	SYBR	N1	Unkn	Sample 014
N02	Cy5	P1	Unkn	Sample 014
N02	SYBR	N1	Unkn	Sample 014
O01	Cy5	P1	Unkn	Sample 015
O01	SYBR	N1	Unkn	Sample 015
O02	Cy5	P1	Unkn	Sample 015
O02	SYBR	N1	Unkn	Sample 015
P01	Cy5	P1	Unkn	Sample 016
P01	SYBR	N1	Unkn	Sample 016
P02	Cy5	P1	Unkn	Sample 016
P02	SYBR	N1	Unkn	Sample 016
A03	Cy5	P1	Unkn	Sample 017
A03	SYBR	N1	Unkn	Sample 017
A04	Cy5	P1	Unkn	Sample 017
A04	SYBR	N1	Unkn	Sample 017
B03	Cy5	P1	Unkn	Sample 018
B03	SYBR	N1	Unkn	Sample 018
B04	Cy5	P1	Unkn	Sample 018
B04	SYBR	N1	Unkn	Sample 018
C03	Cy5	P1	Unkn	Sample 019
C03	SYBR	N1	Unkn	Sample 019
C04	Cy5	P1	Unkn	Sample 019
C04	SYBR	N1	Unkn	Sample 019
D03	Cy5	P1	Unkn	Sample 020
D03	SYBR	N1	Unkn	Sample 020
D04	Cy5	P1	Unkn	Sample 020
D04	SYBR	N1	Unkn	Sample 020
E03	Cy5	P1	Unkn	Sample 021

E03	SYBR	N1	Unkn	Sample 021
E04	Cy5	P1	Unkn	Sample 021
E04	SYBR	N1	Unkn	Sample 021
F03	Cy5	P1	Unkn	Sample 022
F03	SYBR	N1	Unkn	Sample 022
F04	Cy5	P1	Unkn	Sample 022
F04	SYBR	N1	Unkn	Sample 022
G03	Cy5	P1	Unkn	Sample 023
G03	SYBR	N1	Unkn	Sample 023
G04	Cy5	P1	Unkn	Sample 023
G04	SYBR	N1	Unkn	Sample 023
H03	Cy5	P1	Unkn	Sample 024
H03	SYBR	N1	Unkn	Sample 024
H04	Cy5	P1	Unkn	Sample 024
H04	SYBR	N1	Unkn	Sample 024
I03	Cy5	P1	Unkn	Sample 025
I03	SYBR	N1	Unkn	Sample 025
I04	Cy5	P1	Unkn	Sample 025
I04	SYBR	N1	Unkn	Sample 025
J03	Cy5	P1	Unkn	Sample 026
J03	SYBR	N1	Unkn	Sample 026
J04	Cy5	P1	Unkn	Sample 026
J04	SYBR	N1	Unkn	Sample 026
K03	Cy5	P1	Unkn	Sample 027
K03	SYBR	N1	Unkn	Sample 027
K04	Cy5	P1	Unkn	Sample 027
K04	SYBR	N1	Unkn	Sample 027
L03	Cy5	P1	Unkn	Sample 028
L03	SYBR	N1	Unkn	Sample 028
L04	Cy5	P1	Unkn	Sample 028
L04	SYBR	N1	Unkn	Sample 028
M03	Cy5	P1	Unkn	Sample 029
M03	SYBR	N1	Unkn	Sample 029
M04	Cy5	P1	Unkn	Sample 029
M04	SYBR	N1	Unkn	Sample 029
N03	Cy5	P1	Unkn	Sample 030
N03	SYBR	N1	Unkn	Sample 030
N04	Cy5	P1	Unkn	Sample 030
N04	SYBR	N1	Unkn	Sample 030
O03	Cy5	P1	Unkn	Sample 031
O03	SYBR	N1	Unkn	Sample 031
O04	Cy5	P1	Unkn	Sample 031
O04	SYBR	N1	Unkn	Sample 031
P03	Cy5	P1	Unkn	Sample 032
P03	SYBR	N1	Unkn	Sample 032
P04	Cy5	P1	Unkn	Sample 032
P04	SYBR	N1	Unkn	Sample 032

A05	Cy5	P1	Unkn	Sample 033
A05	SYBR	N1	Unkn	Sample 033
A06	Cy5	P1	Unkn	Sample 033
A06	SYBR	N1	Unkn	Sample 033
B05	Cy5	P1	Unkn	Sample 034
B05	SYBR	N1	Unkn	Sample 034
B06	Cy5	P1	Unkn	Sample 034
B06	SYBR	N1	Unkn	Sample 034
C05	Cy5	P1	Unkn	Sample 035
C05	SYBR	N1	Unkn	Sample 035
C06	Cy5	P1	Unkn	Sample 035
C06	SYBR	N1	Unkn	Sample 035
D05	Cy5	P1	Unkn	Sample 036
D05	SYBR	N1	Unkn	Sample 036
D06	Cy5	P1	Unkn	Sample 036
D06	SYBR	N1	Unkn	Sample 036
E05	Cy5	P1	Unkn	Sample 037
E05	SYBR	N1	Unkn	Sample 037
E06	Cy5	P1	Unkn	Sample 037
E06	SYBR	N1	Unkn	Sample 037
F05	Cy5	P1	Unkn	Sample 038
F05	SYBR	N1	Unkn	Sample 038
F06	Cy5	P1	Unkn	Sample 038
F06	SYBR	N1	Unkn	Sample 038
G05	Cy5	P1	Unkn	Sample 039
G05	SYBR	N1	Unkn	Sample 039
G06	Cy5	P1	Unkn	Sample 039
G06	SYBR	N1	Unkn	Sample 039
H05	Cy5	P1	Unkn	Sample 040
H05	SYBR	N1	Unkn	Sample 040
H06	Cy5	P1	Unkn	Sample 040
H06	SYBR	N1	Unkn	Sample 040
I05	Cy5	P1	Unkn	Sample 041
I05	SYBR	N1	Unkn	Sample 041
I06	Cy5	P1	Unkn	Sample 041
I06	SYBR	N1	Unkn	Sample 041
J05	Cy5	P1	Unkn	Sample 042
J05	SYBR	N1	Unkn	Sample 042
J06	Cy5	P1	Unkn	Sample 042
J06	SYBR	N1	Unkn	Sample 042
K05	Cy5	P1	Unkn	Sample 043
K05	SYBR	N1	Unkn	Sample 043
K06	Cy5	P1	Unkn	Sample 043
K06	SYBR	N1	Unkn	Sample 043
L05	Cy5	P1	Unkn	Sample 044
L05	SYBR	N1	Unkn	Sample 044
L06	Cy5	P1	Unkn	Sample 044

L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
M05	SYBR	N1	Unkn	Sample 045
M06	Cy5	P1	Unkn	Sample 045
M06	SYBR	N1	Unkn	Sample 045
N05	Cy5	P1	Unkn	Sample 046
N05	SYBR	N1	Unkn	Sample 046
N06	Cy5	P1	Unkn	Sample 046
N06	SYBR	N1	Unkn	Sample 046
O05	Cy5	P1	Unkn	Sample 047
O05	SYBR	N1	Unkn	Sample 047
O06	Cy5	P1	Unkn	Sample 047
O06	SYBR	N1	Unkn	Sample 047
P05	Cy5	P1	Unkn	Sample 048
P05	SYBR	N1	Unkn	Sample 048
P06	Cy5	P1	Unkn	Sample 048
P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056
H07	SYBR	N1	Unkn	Sample 056

H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
N07	SYBR	N1	Unkn	Sample 062
N08	Cy5	P1	Unkn	Sample 062
N08	SYBR	N1	Unkn	Sample 062
O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
B09	SYBR	N1	Unkn	Sample 066
B10	Cy5	P1	Unkn	Sample 066
B10	SYBR	N1	Unkn	Sample 066
C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067
D09	Cy5	P1	Unkn	Sample 068

D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
E10	SYBR	N1	Unkn	Sample 069
F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
H09	Cy5	P1	Unkn	Sample 072
H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
J09	SYBR	N1	Unkn	Sample 074
J10	Cy5	P1	Unkn	Sample 074
J10	SYBR	N1	Unkn	Sample 074
K09	Cy5	P1	Unkn	Sample 075
K09	SYBR	N1	Unkn	Sample 075
K10	Cy5	P1	Unkn	Sample 075
K10	SYBR	N1	Unkn	Sample 075
L09	Cy5	P1	Unkn	Sample 076
L09	SYBR	N1	Unkn	Sample 076
L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
N09	SYBR	N1	Unkn	Sample 078
N10	Cy5	P1	Unkn	Sample 078
N10	SYBR	N1	Unkn	Sample 078
O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079
O10	SYBR	N1	Unkn	Sample 079

P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
E11	Cy5	P1	Unkn	Sample 085
E11	SYBR	N1	Unkn	Sample 085
E12	Cy5	P1	Unkn	Sample 085
E12	SYBR	N1	Unkn	Sample 085
F11	Cy5	P1	Unkn	Sample 086
F11	SYBR	N1	Unkn	Sample 086
F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
G11	Cy5	P1	Unkn	Sample 087
G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
G12	SYBR	N1	Unkn	Sample 087
H11	Cy5	P1	Unkn	Sample 088
H11	SYBR	N1	Unkn	Sample 088
H12	Cy5	P1	Unkn	Sample 088
H12	SYBR	N1	Unkn	Sample 088
I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091
K12	Cy5	P1	Unkn	Sample 091

K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
M11	Cy5	P1	Unkn	Sample 093
M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
N11	SYBR	N1	Unkn	Sample 094
N12	Cy5	P1	Unkn	Sample 094
N12	SYBR	N1	Unkn	Sample 094
O11	Cy5	P1	Unkn	Sample 095
O11	SYBR	N1	Unkn	Sample 095
O12	Cy5	P1	Unkn	Sample 095
O12	SYBR	N1	Unkn	Sample 095
P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
A13	Cy5	P1	Unkn	Sample 097
A13	SYBR	N1	Unkn	Sample 097
A14	Cy5	P1	Unkn	Sample 097
A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103
G13	SYBR	N1	Unkn	Sample 103

G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
I13	SYBR	N1	Unkn	Sample 105
I14	Cy5	P1	Unkn	Sample 105
I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
J14	Cy5	P1	Unkn	Sample 106
J14	SYBR	N1	Unkn	Sample 106
K13	Cy5	P1	Unkn	Sample 107
K13	SYBR	N1	Unkn	Sample 107
K14	Cy5	P1	Unkn	Sample 107
K14	SYBR	N1	Unkn	Sample 107
L13	Cy5	P1	Unkn	Sample 108
L13	SYBR	N1	Unkn	Sample 108
L14	Cy5	P1	Unkn	Sample 108
L14	SYBR	N1	Unkn	Sample 108
M13	Cy5	P1	Unkn	Sample 109
M13	SYBR	N1	Unkn	Sample 109
M14	Cy5	P1	Unkn	Sample 109
M14	SYBR	N1	Unkn	Sample 109
N13	Cy5	P1	Unkn	Sample 110
N13	SYBR	N1	Unkn	Sample 110
N14	Cy5	P1	Unkn	Sample 110
N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114
C15	Cy5	P1	Unkn	Sample 115

C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
E15	SYBR	N1	Unkn	Sample 117
E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
K16	SYBR	N1	Unkn	Sample 123
L15	Cy5	P1	Unkn	Sample 124
L15	SYBR	N1	Unkn	Sample 124
L16	Cy5	P1	Unkn	Sample 124
L16	SYBR	N1	Unkn	Sample 124
M15	Cy5	P1	Unkn	Sample 125
M15	SYBR	N1	Unkn	Sample 125
M16	Cy5	P1	Unkn	Sample 125
M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126
N16	SYBR	N1	Unkn	Sample 126

O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
E17	Cy5	P1	Unkn	Sample 133
E17	SYBR	N1	Unkn	Sample 133
E18	Cy5	P1	Unkn	Sample 133
E18	SYBR	N1	Unkn	Sample 133
F17	Cy5	P1	Unkn	Sample 134
F17	SYBR	N1	Unkn	Sample 134
F18	Cy5	P1	Unkn	Sample 134
F18	SYBR	N1	Unkn	Sample 134
G17	Cy5	P1	Unkn	Sample 135
G17	SYBR	N1	Unkn	Sample 135
G18	Cy5	P1	Unkn	Sample 135
G18	SYBR	N1	Unkn	Sample 135
H17	Cy5	P1	Unkn	Sample 136
H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138
J18	Cy5	P1	Unkn	Sample 138

J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
M17	SYBR	N1	Unkn	Sample 141
M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
N17	SYBR	N1	Unkn	Sample 142
N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
E19	Cy5	P1	Unkn	Sample 149
E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150
F19	SYBR	N1	Unkn	Sample 150

F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
J20	SYBR	N1	Unkn	Sample 154
K19	Cy5	P1	Unkn	Sample 155
K19	SYBR	N1	Unkn	Sample 155
K20	Cy5	P1	Unkn	Sample 155
K20	SYBR	N1	Unkn	Sample 155
L19	Cy5	P1	Unkn	Sample 156
L19	SYBR	N1	Unkn	Sample 156
L20	Cy5	P1	Unkn	Sample 156
L20	SYBR	N1	Unkn	Sample 156
M19	Cy5	P1	Unkn	Sample 157
M19	SYBR	N1	Unkn	Sample 157
M20	Cy5	P1	Unkn	Sample 157
M20	SYBR	N1	Unkn	Sample 157
N19	Cy5	P1	Unkn	Sample 158
N19	SYBR	N1	Unkn	Sample 158
N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161
B21	Cy5	P1	Unkn	Sample 162

B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
E21	Cy5	P1	Unkn	Sample 165
E21	SYBR	N1	Unkn	Sample 165
E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
G21	Cy5	P1	Unkn	Sample 167
G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
I21	SYBR	N1	Unkn	Sample 169
I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
J22	Cy5	P1	Unkn	Sample 170
J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173
M22	SYBR	N1	Unkn	Sample 173

N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
O21	SYBR	N1	Unkn	Sample 175
O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
F23	SYBR	N1	Unkn	Sample 182
F24	Cy5	P1	Unkn	Sample 182
F24	SYBR	N1	Unkn	Sample 182
G23	Cy5	P1	Unkn	Sample 183
G23	SYBR	N1	Unkn	Sample 183
G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185
I24	Cy5	P1	Unkn	Sample 185

	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

Cq Fill In Data Interp

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				
11	46	2A				

11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
4	61	1A
4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
5	67	1A
5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
7	73	1A
7	74	1B
7	75	1C
7	76	2A
7	77	2B
7	78	2C
8	79	1A
8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
11	91	1A
11	92	1B
11	93	1C

11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
2	103	1A
2	104	1B
2	105	1C
2	106	2A
2	107	2B
2	108	2C
4	109	1A
4	110	1B
4	111	1C
4	112	2A
4	113	2B
4	114	2C
5	115	1A
5	116	1B
5	117	1C
5	118	2A
5	119	2B
5	120	2C
7	121	1A
7	122	1B
7	123	1C
7	124	2A
7	125	2B
7	126	2C
8	127	1A
8	128	1B
8	129	1C
8	130	2A
8	131	2B
8	132	2C
10	133	1A
10	134	1B
10	135	1C
10	136	2A
10	137	2B
10	138	2C
11	139	1A
11	140	1B

11	141	1C
11	142	2A
11	143	2B
11	144	2C
1	145	1A
1	146	1B
1	147	1C
1	148	2A
1	149	2B
1	150	2C
2	151	1A
2	152	1B
2	153	1C
2	154	2A
2	155	2B
2	156	2C
4	157	1A
4	158	1B
4	159	1C
4	160	2A
4	161	2B
4	162	2C
5	163	1A
5	164	1B
5	165	1C
5	166	2A
5	167	2B
5	168	2C
7	169	1A
7	170	1B
7	171	1C
7	172	2A
7	173	2B
7	174	2C
8	175	1A
8	176	1B
8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C
11	187	1A

11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	0
Robot:	Cletus
Plate:	5
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
	B02	Cy5	P1	Unkn	Sample 002
	B02	SYBR	N1	Unkn	Sample 002
	C01	Cy5	P1	Unkn	Sample 003
	C01	SYBR	N1	Unkn	Sample 003
	C02	Cy5	P1	Unkn	Sample 003
	C02	SYBR	N1	Unkn	Sample 003
	D01	Cy5	P1	Unkn	Sample 004
	D01	SYBR	N1	Unkn	Sample 004
	D02	Cy5	P1	Unkn	Sample 004
	D02	SYBR	N1	Unkn	Sample 004
	E01	Cy5	P1	Unkn	Sample 005
	E01	SYBR	N1	Unkn	Sample 005
	E02	Cy5	P1	Unkn	Sample 005
	E02	SYBR	N1	Unkn	Sample 005
	F01	Cy5	P1	Unkn	Sample 006
	F01	SYBR	N1	Unkn	Sample 006
	F02	Cy5	P1	Unkn	Sample 006
	F02	SYBR	N1	Unkn	Sample 006
	G01	Cy5	P1	Unkn	Sample 007
	G01	SYBR	N1	Unkn	Sample 007
	G02	Cy5	P1	Unkn	Sample 007
	G02	SYBR	N1	Unkn	Sample 007
	H01	Cy5	P1	Unkn	Sample 008
	H01	SYBR	N1	Unkn	Sample 008
	H02	Cy5	P1	Unkn	Sample 008
	H02	SYBR	N1	Unkn	Sample 008
	I01	Cy5	P1	Unkn	Sample 009
	I01	SYBR	N1	Unkn	Sample 009

I02	Cy5	P1	Unkn	Sample 009
I02	SYBR	N1	Unkn	Sample 009
J01	Cy5	P1	Unkn	Sample 010
J01	SYBR	N1	Unkn	Sample 010
J02	Cy5	P1	Unkn	Sample 010
J02	SYBR	N1	Unkn	Sample 010
K01	Cy5	P1	Unkn	Sample 011
K01	SYBR	N1	Unkn	Sample 011
K02	Cy5	P1	Unkn	Sample 011
K02	SYBR	N1	Unkn	Sample 011
L01	Cy5	P1	Unkn	Sample 012
L01	SYBR	N1	Unkn	Sample 012
L02	Cy5	P1	Unkn	Sample 012
L02	SYBR	N1	Unkn	Sample 012
M01	Cy5	P1	Unkn	Sample 013
M01	SYBR	N1	Unkn	Sample 013
M02	Cy5	P1	Unkn	Sample 013
M02	SYBR	N1	Unkn	Sample 013
N01	Cy5	P1	Unkn	Sample 014
N01	SYBR	N1	Unkn	Sample 014
N02	Cy5	P1	Unkn	Sample 014
N02	SYBR	N1	Unkn	Sample 014
O01	Cy5	P1	Unkn	Sample 015
O01	SYBR	N1	Unkn	Sample 015
O02	Cy5	P1	Unkn	Sample 015
O02	SYBR	N1	Unkn	Sample 015
P01	Cy5	P1	Unkn	Sample 016
P01	SYBR	N1	Unkn	Sample 016
P02	Cy5	P1	Unkn	Sample 016
P02	SYBR	N1	Unkn	Sample 016
A03	Cy5	P1	Unkn	Sample 017
A03	SYBR	N1	Unkn	Sample 017
A04	Cy5	P1	Unkn	Sample 017
A04	SYBR	N1	Unkn	Sample 017
B03	Cy5	P1	Unkn	Sample 018
B03	SYBR	N1	Unkn	Sample 018
B04	Cy5	P1	Unkn	Sample 018
B04	SYBR	N1	Unkn	Sample 018
C03	Cy5	P1	Unkn	Sample 019
C03	SYBR	N1	Unkn	Sample 019
C04	Cy5	P1	Unkn	Sample 019
C04	SYBR	N1	Unkn	Sample 019
D03	Cy5	P1	Unkn	Sample 020
D03	SYBR	N1	Unkn	Sample 020
D04	Cy5	P1	Unkn	Sample 020
D04	SYBR	N1	Unkn	Sample 020
E03	Cy5	P1	Unkn	Sample 021

E03	SYBR	N1	Unkn	Sample 021
E04	Cy5	P1	Unkn	Sample 021
E04	SYBR	N1	Unkn	Sample 021
F03	Cy5	P1	Unkn	Sample 022
F03	SYBR	N1	Unkn	Sample 022
F04	Cy5	P1	Unkn	Sample 022
F04	SYBR	N1	Unkn	Sample 022
G03	Cy5	P1	Unkn	Sample 023
G03	SYBR	N1	Unkn	Sample 023
G04	Cy5	P1	Unkn	Sample 023
G04	SYBR	N1	Unkn	Sample 023
H03	Cy5	P1	Unkn	Sample 024
H03	SYBR	N1	Unkn	Sample 024
H04	Cy5	P1	Unkn	Sample 024
H04	SYBR	N1	Unkn	Sample 024
I03	Cy5	P1	Unkn	Sample 025
I03	SYBR	N1	Unkn	Sample 025
I04	Cy5	P1	Unkn	Sample 025
I04	SYBR	N1	Unkn	Sample 025
J03	Cy5	P1	Unkn	Sample 026
J03	SYBR	N1	Unkn	Sample 026
J04	Cy5	P1	Unkn	Sample 026
J04	SYBR	N1	Unkn	Sample 026
K03	Cy5	P1	Unkn	Sample 027
K03	SYBR	N1	Unkn	Sample 027
K04	Cy5	P1	Unkn	Sample 027
K04	SYBR	N1	Unkn	Sample 027
L03	Cy5	P1	Unkn	Sample 028
L03	SYBR	N1	Unkn	Sample 028
L04	Cy5	P1	Unkn	Sample 028
L04	SYBR	N1	Unkn	Sample 028
M03	Cy5	P1	Unkn	Sample 029
M03	SYBR	N1	Unkn	Sample 029
M04	Cy5	P1	Unkn	Sample 029
M04	SYBR	N1	Unkn	Sample 029
N03	Cy5	P1	Unkn	Sample 030
N03	SYBR	N1	Unkn	Sample 030
N04	Cy5	P1	Unkn	Sample 030
N04	SYBR	N1	Unkn	Sample 030
O03	Cy5	P1	Unkn	Sample 031
O03	SYBR	N1	Unkn	Sample 031
O04	Cy5	P1	Unkn	Sample 031
O04	SYBR	N1	Unkn	Sample 031
P03	Cy5	P1	Unkn	Sample 032
P03	SYBR	N1	Unkn	Sample 032
P04	Cy5	P1	Unkn	Sample 032
P04	SYBR	N1	Unkn	Sample 032

A05	Cy5	P1	Unkn	Sample 033
A05	SYBR	N1	Unkn	Sample 033
A06	Cy5	P1	Unkn	Sample 033
A06	SYBR	N1	Unkn	Sample 033
B05	Cy5	P1	Unkn	Sample 034
B05	SYBR	N1	Unkn	Sample 034
B06	Cy5	P1	Unkn	Sample 034
B06	SYBR	N1	Unkn	Sample 034
C05	Cy5	P1	Unkn	Sample 035
C05	SYBR	N1	Unkn	Sample 035
C06	Cy5	P1	Unkn	Sample 035
C06	SYBR	N1	Unkn	Sample 035
D05	Cy5	P1	Unkn	Sample 036
D05	SYBR	N1	Unkn	Sample 036
D06	Cy5	P1	Unkn	Sample 036
D06	SYBR	N1	Unkn	Sample 036
E05	Cy5	P1	Unkn	Sample 037
E05	SYBR	N1	Unkn	Sample 037
E06	Cy5	P1	Unkn	Sample 037
E06	SYBR	N1	Unkn	Sample 037
F05	Cy5	P1	Unkn	Sample 038
F05	SYBR	N1	Unkn	Sample 038
F06	Cy5	P1	Unkn	Sample 038
F06	SYBR	N1	Unkn	Sample 038
G05	Cy5	P1	Unkn	Sample 039
G05	SYBR	N1	Unkn	Sample 039
G06	Cy5	P1	Unkn	Sample 039
G06	SYBR	N1	Unkn	Sample 039
H05	Cy5	P1	Unkn	Sample 040
H05	SYBR	N1	Unkn	Sample 040
H06	Cy5	P1	Unkn	Sample 040
H06	SYBR	N1	Unkn	Sample 040
I05	Cy5	P1	Unkn	Sample 041
I05	SYBR	N1	Unkn	Sample 041
I06	Cy5	P1	Unkn	Sample 041
I06	SYBR	N1	Unkn	Sample 041
J05	Cy5	P1	Unkn	Sample 042
J05	SYBR	N1	Unkn	Sample 042
J06	Cy5	P1	Unkn	Sample 042
J06	SYBR	N1	Unkn	Sample 042
K05	Cy5	P1	Unkn	Sample 043
K05	SYBR	N1	Unkn	Sample 043
K06	Cy5	P1	Unkn	Sample 043
K06	SYBR	N1	Unkn	Sample 043
L05	Cy5	P1	Unkn	Sample 044
L05	SYBR	N1	Unkn	Sample 044
L06	Cy5	P1	Unkn	Sample 044

L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
M05	SYBR	N1	Unkn	Sample 045
M06	Cy5	P1	Unkn	Sample 045
M06	SYBR	N1	Unkn	Sample 045
N05	Cy5	P1	Unkn	Sample 046
N05	SYBR	N1	Unkn	Sample 046
N06	Cy5	P1	Unkn	Sample 046
N06	SYBR	N1	Unkn	Sample 046
O05	Cy5	P1	Unkn	Sample 047
O05	SYBR	N1	Unkn	Sample 047
O06	Cy5	P1	Unkn	Sample 047
O06	SYBR	N1	Unkn	Sample 047
P05	Cy5	P1	Unkn	Sample 048
P05	SYBR	N1	Unkn	Sample 048
P06	Cy5	P1	Unkn	Sample 048
P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056
H07	SYBR	N1	Unkn	Sample 056

H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
N07	SYBR	N1	Unkn	Sample 062
N08	Cy5	P1	Unkn	Sample 062
N08	SYBR	N1	Unkn	Sample 062
O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
B09	SYBR	N1	Unkn	Sample 066
B10	Cy5	P1	Unkn	Sample 066
B10	SYBR	N1	Unkn	Sample 066
C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067
D09	Cy5	P1	Unkn	Sample 068

D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
E10	SYBR	N1	Unkn	Sample 069
F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
H09	Cy5	P1	Unkn	Sample 072
H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
J09	SYBR	N1	Unkn	Sample 074
J10	Cy5	P1	Unkn	Sample 074
J10	SYBR	N1	Unkn	Sample 074
K09	Cy5	P1	Unkn	Sample 075
K09	SYBR	N1	Unkn	Sample 075
K10	Cy5	P1	Unkn	Sample 075
K10	SYBR	N1	Unkn	Sample 075
L09	Cy5	P1	Unkn	Sample 076
L09	SYBR	N1	Unkn	Sample 076
L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
N09	SYBR	N1	Unkn	Sample 078
N10	Cy5	P1	Unkn	Sample 078
N10	SYBR	N1	Unkn	Sample 078
O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079
O10	SYBR	N1	Unkn	Sample 079

P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
E11	Cy5	P1	Unkn	Sample 085
E11	SYBR	N1	Unkn	Sample 085
E12	Cy5	P1	Unkn	Sample 085
E12	SYBR	N1	Unkn	Sample 085
F11	Cy5	P1	Unkn	Sample 086
F11	SYBR	N1	Unkn	Sample 086
F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
G11	Cy5	P1	Unkn	Sample 087
G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
G12	SYBR	N1	Unkn	Sample 087
H11	Cy5	P1	Unkn	Sample 088
H11	SYBR	N1	Unkn	Sample 088
H12	Cy5	P1	Unkn	Sample 088
H12	SYBR	N1	Unkn	Sample 088
I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091
K12	Cy5	P1	Unkn	Sample 091

K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
M11	Cy5	P1	Unkn	Sample 093
M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
N11	SYBR	N1	Unkn	Sample 094
N12	Cy5	P1	Unkn	Sample 094
N12	SYBR	N1	Unkn	Sample 094
O11	Cy5	P1	Unkn	Sample 095
O11	SYBR	N1	Unkn	Sample 095
O12	Cy5	P1	Unkn	Sample 095
O12	SYBR	N1	Unkn	Sample 095
P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
A13	Cy5	P1	Unkn	Sample 097
A13	SYBR	N1	Unkn	Sample 097
A14	Cy5	P1	Unkn	Sample 097
A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103
G13	SYBR	N1	Unkn	Sample 103

G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
I13	SYBR	N1	Unkn	Sample 105
I14	Cy5	P1	Unkn	Sample 105
I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
J14	Cy5	P1	Unkn	Sample 106
J14	SYBR	N1	Unkn	Sample 106
K13	Cy5	P1	Unkn	Sample 107
K13	SYBR	N1	Unkn	Sample 107
K14	Cy5	P1	Unkn	Sample 107
K14	SYBR	N1	Unkn	Sample 107
L13	Cy5	P1	Unkn	Sample 108
L13	SYBR	N1	Unkn	Sample 108
L14	Cy5	P1	Unkn	Sample 108
L14	SYBR	N1	Unkn	Sample 108
M13	Cy5	P1	Unkn	Sample 109
M13	SYBR	N1	Unkn	Sample 109
M14	Cy5	P1	Unkn	Sample 109
M14	SYBR	N1	Unkn	Sample 109
N13	Cy5	P1	Unkn	Sample 110
N13	SYBR	N1	Unkn	Sample 110
N14	Cy5	P1	Unkn	Sample 110
N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114
C15	Cy5	P1	Unkn	Sample 115

C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
E15	SYBR	N1	Unkn	Sample 117
E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
K16	SYBR	N1	Unkn	Sample 123
L15	Cy5	P1	Unkn	Sample 124
L15	SYBR	N1	Unkn	Sample 124
L16	Cy5	P1	Unkn	Sample 124
L16	SYBR	N1	Unkn	Sample 124
M15	Cy5	P1	Unkn	Sample 125
M15	SYBR	N1	Unkn	Sample 125
M16	Cy5	P1	Unkn	Sample 125
M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126
N16	SYBR	N1	Unkn	Sample 126

O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
E17	Cy5	P1	Unkn	Sample 133
E17	SYBR	N1	Unkn	Sample 133
E18	Cy5	P1	Unkn	Sample 133
E18	SYBR	N1	Unkn	Sample 133
F17	Cy5	P1	Unkn	Sample 134
F17	SYBR	N1	Unkn	Sample 134
F18	Cy5	P1	Unkn	Sample 134
F18	SYBR	N1	Unkn	Sample 134
G17	Cy5	P1	Unkn	Sample 135
G17	SYBR	N1	Unkn	Sample 135
G18	Cy5	P1	Unkn	Sample 135
G18	SYBR	N1	Unkn	Sample 135
H17	Cy5	P1	Unkn	Sample 136
H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138
J18	Cy5	P1	Unkn	Sample 138

J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
M17	SYBR	N1	Unkn	Sample 141
M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
N17	SYBR	N1	Unkn	Sample 142
N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
E19	Cy5	P1	Unkn	Sample 149
E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150
F19	SYBR	N1	Unkn	Sample 150

F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
J20	SYBR	N1	Unkn	Sample 154
K19	Cy5	P1	Unkn	Sample 155
K19	SYBR	N1	Unkn	Sample 155
K20	Cy5	P1	Unkn	Sample 155
K20	SYBR	N1	Unkn	Sample 155
L19	Cy5	P1	Unkn	Sample 156
L19	SYBR	N1	Unkn	Sample 156
L20	Cy5	P1	Unkn	Sample 156
L20	SYBR	N1	Unkn	Sample 156
M19	Cy5	P1	Unkn	Sample 157
M19	SYBR	N1	Unkn	Sample 157
M20	Cy5	P1	Unkn	Sample 157
M20	SYBR	N1	Unkn	Sample 157
N19	Cy5	P1	Unkn	Sample 158
N19	SYBR	N1	Unkn	Sample 158
N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161
B21	Cy5	P1	Unkn	Sample 162

B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
E21	Cy5	P1	Unkn	Sample 165
E21	SYBR	N1	Unkn	Sample 165
E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
G21	Cy5	P1	Unkn	Sample 167
G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
I21	SYBR	N1	Unkn	Sample 169
I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
J22	Cy5	P1	Unkn	Sample 170
J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173
M22	SYBR	N1	Unkn	Sample 173

N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
O21	SYBR	N1	Unkn	Sample 175
O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
F23	SYBR	N1	Unkn	Sample 182
F24	Cy5	P1	Unkn	Sample 182
F24	SYBR	N1	Unkn	Sample 182
G23	Cy5	P1	Unkn	Sample 183
G23	SYBR	N1	Unkn	Sample 183
G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185
I24	Cy5	P1	Unkn	Sample 185

	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

Cq Fill In Data Interp

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Rack	Sample	Position	Scan Here	Rymedi Result	Plate Result	First Result
1	1	1A				
1	2	1B				
1	3	1C				
1	4	2A				
1	5	2B				
1	6	2C				
2	7	1A				
2	8	1B				
2	9	1C				
2	10	2A				
2	11	2B				
2	12	2C				
4	13	1A				
4	14	1B				
4	15	1C				
4	16	2A				
4	17	2B				
4	18	2C				
5	19	1A				
5	20	1B				
5	21	1C				
5	22	2A				
5	23	2B				
5	24	2C				
7	25	1A				
7	26	1B				
7	27	1C				
7	28	2A				
7	29	2B				
7	30	2C				
8	31	1A				
8	32	1B				
8	33	1C				
8	34	2A				
8	35	2B				
8	36	2C				
10	37	1A				
10	38	1B				
10	39	1C				
10	40	2A				
10	41	2B				
10	42	2C				
11	43	1A				
11	44	1B				
11	45	1C				

11	46	2A
11	47	2B
11	48	2C
1	49	1A
1	50	1B
1	51	1C
1	52	2A
1	53	2B
1	54	2C
2	55	1A
2	56	1B
2	57	1C
2	58	2A
2	59	2B
2	60	2C
4	61	1A
4	62	1B
4	63	1C
4	64	2A
4	65	2B
4	66	2C
5	67	1A
5	68	1B
5	69	1C
5	70	2A
5	71	2B
5	72	2C
7	73	1A
7	74	1B
7	75	1C
7	76	2A
7	77	2B
7	78	2C
8	79	1A
8	80	1B
8	81	1C
8	82	2A
8	83	2B
8	84	2C
10	85	1A
10	86	1B
10	87	1C
10	88	2A
10	89	2B
10	90	2C
11	91	1A
11	92	1B

11	93	1C
11	94	2A
11	95	2B
11	96	2C
1	97	1A
1	98	1B
1	99	1C
1	100	2A
1	101	2B
1	102	2C
2	103	1A
2	104	1B
2	105	1C
2	106	2A
2	107	2B
2	108	2C
4	109	1A
4	110	1B
4	111	1C
4	112	2A
4	113	2B
4	114	2C
5	115	1A
5	116	1B
5	117	1C
5	118	2A
5	119	2B
5	120	2C
7	121	1A
7	122	1B
7	123	1C
7	124	2A
7	125	2B
7	126	2C
8	127	1A
8	128	1B
8	129	1C
8	130	2A
8	131	2B
8	132	2C
10	133	1A
10	134	1B
10	135	1C
10	136	2A
10	137	2B
10	138	2C
11	139	1A

11	140	1B
11	141	1C
11	142	2A
11	143	2B
11	144	2C
1	145	1A
1	146	1B
1	147	1C
1	148	2A
1	149	2B
1	150	2C
2	151	1A
2	152	1B
2	153	1C
2	154	2A
2	155	2B
2	156	2C
4	157	1A
4	158	1B
4	159	1C
4	160	2A
4	161	2B
4	162	2C
5	163	1A
5	164	1B
5	165	1C
5	166	2A
5	167	2B
5	168	2C
7	169	1A
7	170	1B
7	171	1C
7	172	2A
7	173	2B
7	174	2C
8	175	1A
8	176	1B
8	177	1C
8	178	2A
8	179	2B
8	180	2C
10	181	1A
10	182	1B
10	183	1C
10	184	2A
10	185	2B
10	186	2C

11	187	1A
11	188	1B
11	189	1C
STOP	STOP	STOP
STOP	STOP	STOP
STOP	STOP	STOP

SCAN Bar code here

Enter CQ Values

Rerun From	Rerun To	Val. Sample	Original Validation Result	Validated?

Date:	0
Robot:	Cletus
Plate:	6
Plate Barcode:	
Q1 Tech:	ENTER INITIALS
Q2 Tech:	ENTER INITIALS
Q3 Tech:	ENTER INITIALS
Q4 Tech:	ENTER INITIALS
Control Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Result Tech:	ENTER INITIALS
Thermocycler:	
Rymedi Job:	
NTC:	#N/A
N1 Pos	#N/A
P1 Pos	#N/A
Notes:	
Positives:	0
Reruns:	0
Negatives:	0
Inconclusives:	0
Total:	189
Overnight Pos:	
Rymedi Upload:	189

POSITIVE PATIENT SAMPLE DO NOT REPORT

Barcode	Well	Fluor	Target	Content	Sample
[redacted]	P23	Cy5	P1	Unkn	Empty Mastermix
	P23	SYBR	N1	Unkn	Empty Mastermix
	P24	Cy5	P1	Unkn	Empty Mastermix
	P24	SYBR	N1	Unkn	Empty Mastermix
	N23	Cy5	P1	NTC	Neg Control
	N23	SYBR	N1	NTC	Neg Control
	N24	Cy5	P1	NTC	Neg Control
	N24	SYBR	N1	NTC	Neg Control
	O23	Cy5	P1	Pos Ctrl	Pos Control
	O23	SYBR	N1	Pos Ctrl	Pos Control
	O24	Cy5	P1	Pos Ctrl	Pos Control
	O24	SYBR	N1	Pos Ctrl	Pos Control
	A01	Cy5	P1	Unkn	Sample 001
	A01	SYBR	N1	Unkn	Sample 001
	A02	Cy5	P1	Unkn	Sample 001
	A02	SYBR	N1	Unkn	Sample 001
	B01	Cy5	P1	Unkn	Sample 002
	B01	SYBR	N1	Unkn	Sample 002
	B02	Cy5	P1	Unkn	Sample 002
	B02	SYBR	N1	Unkn	Sample 002
	C01	Cy5	P1	Unkn	Sample 003
	C01	SYBR	N1	Unkn	Sample 003
	C02	Cy5	P1	Unkn	Sample 003
	C02	SYBR	N1	Unkn	Sample 003
	D01	Cy5	P1	Unkn	Sample 004
	D01	SYBR	N1	Unkn	Sample 004
	D02	Cy5	P1	Unkn	Sample 004
	D02	SYBR	N1	Unkn	Sample 004
	E01	Cy5	P1	Unkn	Sample 005
	E01	SYBR	N1	Unkn	Sample 005
	E02	Cy5	P1	Unkn	Sample 005
	E02	SYBR	N1	Unkn	Sample 005
	F01	Cy5	P1	Unkn	Sample 006
	F01	SYBR	N1	Unkn	Sample 006
	F02	Cy5	P1	Unkn	Sample 006
	F02	SYBR	N1	Unkn	Sample 006
	G01	Cy5	P1	Unkn	Sample 007
	G01	SYBR	N1	Unkn	Sample 007
	G02	Cy5	P1	Unkn	Sample 007
	G02	SYBR	N1	Unkn	Sample 007
	H01	Cy5	P1	Unkn	Sample 008
	H01	SYBR	N1	Unkn	Sample 008
	H02	Cy5	P1	Unkn	Sample 008
	H02	SYBR	N1	Unkn	Sample 008
	I01	Cy5	P1	Unkn	Sample 009

I01	SYBR	N1	Unkn	Sample 009
I02	Cy5	P1	Unkn	Sample 009
I02	SYBR	N1	Unkn	Sample 009
J01	Cy5	P1	Unkn	Sample 010
J01	SYBR	N1	Unkn	Sample 010
J02	Cy5	P1	Unkn	Sample 010
J02	SYBR	N1	Unkn	Sample 010
K01	Cy5	P1	Unkn	Sample 011
K01	SYBR	N1	Unkn	Sample 011
K02	Cy5	P1	Unkn	Sample 011
K02	SYBR	N1	Unkn	Sample 011
L01	Cy5	P1	Unkn	Sample 012
L01	SYBR	N1	Unkn	Sample 012
L02	Cy5	P1	Unkn	Sample 012
L02	SYBR	N1	Unkn	Sample 012
M01	Cy5	P1	Unkn	Sample 013
M01	SYBR	N1	Unkn	Sample 013
M02	Cy5	P1	Unkn	Sample 013
M02	SYBR	N1	Unkn	Sample 013
N01	Cy5	P1	Unkn	Sample 014
N01	SYBR	N1	Unkn	Sample 014
N02	Cy5	P1	Unkn	Sample 014
N02	SYBR	N1	Unkn	Sample 014
O01	Cy5	P1	Unkn	Sample 015
O01	SYBR	N1	Unkn	Sample 015
O02	Cy5	P1	Unkn	Sample 015
O02	SYBR	N1	Unkn	Sample 015
P01	Cy5	P1	Unkn	Sample 016
P01	SYBR	N1	Unkn	Sample 016
P02	Cy5	P1	Unkn	Sample 016
P02	SYBR	N1	Unkn	Sample 016
A03	Cy5	P1	Unkn	Sample 017
A03	SYBR	N1	Unkn	Sample 017
A04	Cy5	P1	Unkn	Sample 017
A04	SYBR	N1	Unkn	Sample 017
B03	Cy5	P1	Unkn	Sample 018
B03	SYBR	N1	Unkn	Sample 018
B04	Cy5	P1	Unkn	Sample 018
B04	SYBR	N1	Unkn	Sample 018
C03	Cy5	P1	Unkn	Sample 019
C03	SYBR	N1	Unkn	Sample 019
C04	Cy5	P1	Unkn	Sample 019
C04	SYBR	N1	Unkn	Sample 019
D03	Cy5	P1	Unkn	Sample 020
D03	SYBR	N1	Unkn	Sample 020
D04	Cy5	P1	Unkn	Sample 020
D04	SYBR	N1	Unkn	Sample 020

E03	Cy5	P1	Unkn	Sample 021
E03	SYBR	N1	Unkn	Sample 021
E04	Cy5	P1	Unkn	Sample 021
E04	SYBR	N1	Unkn	Sample 021
F03	Cy5	P1	Unkn	Sample 022
F03	SYBR	N1	Unkn	Sample 022
F04	Cy5	P1	Unkn	Sample 022
F04	SYBR	N1	Unkn	Sample 022
G03	Cy5	P1	Unkn	Sample 023
G03	SYBR	N1	Unkn	Sample 023
G04	Cy5	P1	Unkn	Sample 023
G04	SYBR	N1	Unkn	Sample 023
H03	Cy5	P1	Unkn	Sample 024
H03	SYBR	N1	Unkn	Sample 024
H04	Cy5	P1	Unkn	Sample 024
H04	SYBR	N1	Unkn	Sample 024
I03	Cy5	P1	Unkn	Sample 025
I03	SYBR	N1	Unkn	Sample 025
I04	Cy5	P1	Unkn	Sample 025
I04	SYBR	N1	Unkn	Sample 025
J03	Cy5	P1	Unkn	Sample 026
J03	SYBR	N1	Unkn	Sample 026
J04	Cy5	P1	Unkn	Sample 026
J04	SYBR	N1	Unkn	Sample 026
K03	Cy5	P1	Unkn	Sample 027
K03	SYBR	N1	Unkn	Sample 027
K04	Cy5	P1	Unkn	Sample 027
K04	SYBR	N1	Unkn	Sample 027
L03	Cy5	P1	Unkn	Sample 028
L03	SYBR	N1	Unkn	Sample 028
L04	Cy5	P1	Unkn	Sample 028
L04	SYBR	N1	Unkn	Sample 028
M03	Cy5	P1	Unkn	Sample 029
M03	SYBR	N1	Unkn	Sample 029
M04	Cy5	P1	Unkn	Sample 029
M04	SYBR	N1	Unkn	Sample 029
N03	Cy5	P1	Unkn	Sample 030
N03	SYBR	N1	Unkn	Sample 030
N04	Cy5	P1	Unkn	Sample 030
N04	SYBR	N1	Unkn	Sample 030
O03	Cy5	P1	Unkn	Sample 031
O03	SYBR	N1	Unkn	Sample 031
O04	Cy5	P1	Unkn	Sample 031
O04	SYBR	N1	Unkn	Sample 031
P03	Cy5	P1	Unkn	Sample 032
P03	SYBR	N1	Unkn	Sample 032
P04	Cy5	P1	Unkn	Sample 032

P04	SYBR	N1	Unkn	Sample 032
A05	Cy5	P1	Unkn	Sample 033
A05	SYBR	N1	Unkn	Sample 033
A06	Cy5	P1	Unkn	Sample 033
A06	SYBR	N1	Unkn	Sample 033
B05	Cy5	P1	Unkn	Sample 034
B05	SYBR	N1	Unkn	Sample 034
B06	Cy5	P1	Unkn	Sample 034
B06	SYBR	N1	Unkn	Sample 034
C05	Cy5	P1	Unkn	Sample 035
C05	SYBR	N1	Unkn	Sample 035
C06	Cy5	P1	Unkn	Sample 035
C06	SYBR	N1	Unkn	Sample 035
D05	Cy5	P1	Unkn	Sample 036
D05	SYBR	N1	Unkn	Sample 036
D06	Cy5	P1	Unkn	Sample 036
D06	SYBR	N1	Unkn	Sample 036
E05	Cy5	P1	Unkn	Sample 037
E05	SYBR	N1	Unkn	Sample 037
E06	Cy5	P1	Unkn	Sample 037
E06	SYBR	N1	Unkn	Sample 037
F05	Cy5	P1	Unkn	Sample 038
F05	SYBR	N1	Unkn	Sample 038
F06	Cy5	P1	Unkn	Sample 038
F06	SYBR	N1	Unkn	Sample 038
G05	Cy5	P1	Unkn	Sample 039
G05	SYBR	N1	Unkn	Sample 039
G06	Cy5	P1	Unkn	Sample 039
G06	SYBR	N1	Unkn	Sample 039
H05	Cy5	P1	Unkn	Sample 040
H05	SYBR	N1	Unkn	Sample 040
H06	Cy5	P1	Unkn	Sample 040
H06	SYBR	N1	Unkn	Sample 040
I05	Cy5	P1	Unkn	Sample 041
I05	SYBR	N1	Unkn	Sample 041
I06	Cy5	P1	Unkn	Sample 041
I06	SYBR	N1	Unkn	Sample 041
J05	Cy5	P1	Unkn	Sample 042
J05	SYBR	N1	Unkn	Sample 042
J06	Cy5	P1	Unkn	Sample 042
J06	SYBR	N1	Unkn	Sample 042
K05	Cy5	P1	Unkn	Sample 043
K05	SYBR	N1	Unkn	Sample 043
K06	Cy5	P1	Unkn	Sample 043
K06	SYBR	N1	Unkn	Sample 043
L05	Cy5	P1	Unkn	Sample 044
L05	SYBR	N1	Unkn	Sample 044

L06	Cy5	P1	Unkn	Sample 044
L06	SYBR	N1	Unkn	Sample 044
M05	Cy5	P1	Unkn	Sample 045
M05	SYBR	N1	Unkn	Sample 045
M06	Cy5	P1	Unkn	Sample 045
M06	SYBR	N1	Unkn	Sample 045
N05	Cy5	P1	Unkn	Sample 046
N05	SYBR	N1	Unkn	Sample 046
N06	Cy5	P1	Unkn	Sample 046
N06	SYBR	N1	Unkn	Sample 046
O05	Cy5	P1	Unkn	Sample 047
O05	SYBR	N1	Unkn	Sample 047
O06	Cy5	P1	Unkn	Sample 047
O06	SYBR	N1	Unkn	Sample 047
P05	Cy5	P1	Unkn	Sample 048
P05	SYBR	N1	Unkn	Sample 048
P06	Cy5	P1	Unkn	Sample 048
P06	SYBR	N1	Unkn	Sample 048
A07	Cy5	P1	Unkn	Sample 049
A07	SYBR	N1	Unkn	Sample 049
A08	Cy5	P1	Unkn	Sample 049
A08	SYBR	N1	Unkn	Sample 049
B07	Cy5	P1	Unkn	Sample 050
B07	SYBR	N1	Unkn	Sample 050
B08	Cy5	P1	Unkn	Sample 050
B08	SYBR	N1	Unkn	Sample 050
C07	Cy5	P1	Unkn	Sample 051
C07	SYBR	N1	Unkn	Sample 051
C08	Cy5	P1	Unkn	Sample 051
C08	SYBR	N1	Unkn	Sample 051
D07	Cy5	P1	Unkn	Sample 052
D07	SYBR	N1	Unkn	Sample 052
D08	Cy5	P1	Unkn	Sample 052
D08	SYBR	N1	Unkn	Sample 052
E07	Cy5	P1	Unkn	Sample 053
E07	SYBR	N1	Unkn	Sample 053
E08	Cy5	P1	Unkn	Sample 053
E08	SYBR	N1	Unkn	Sample 053
F07	Cy5	P1	Unkn	Sample 054
F07	SYBR	N1	Unkn	Sample 054
F08	Cy5	P1	Unkn	Sample 054
F08	SYBR	N1	Unkn	Sample 054
G07	Cy5	P1	Unkn	Sample 055
G07	SYBR	N1	Unkn	Sample 055
G08	Cy5	P1	Unkn	Sample 055
G08	SYBR	N1	Unkn	Sample 055
H07	Cy5	P1	Unkn	Sample 056

H07	SYBR	N1	Unkn	Sample 056
H08	Cy5	P1	Unkn	Sample 056
H08	SYBR	N1	Unkn	Sample 056
I07	Cy5	P1	Unkn	Sample 057
I07	SYBR	N1	Unkn	Sample 057
I08	Cy5	P1	Unkn	Sample 057
I08	SYBR	N1	Unkn	Sample 057
J07	Cy5	P1	Unkn	Sample 058
J07	SYBR	N1	Unkn	Sample 058
J08	Cy5	P1	Unkn	Sample 058
J08	SYBR	N1	Unkn	Sample 058
K07	Cy5	P1	Unkn	Sample 059
K07	SYBR	N1	Unkn	Sample 059
K08	Cy5	P1	Unkn	Sample 059
K08	SYBR	N1	Unkn	Sample 059
L07	Cy5	P1	Unkn	Sample 060
L07	SYBR	N1	Unkn	Sample 060
L08	Cy5	P1	Unkn	Sample 060
L08	SYBR	N1	Unkn	Sample 060
M07	Cy5	P1	Unkn	Sample 061
M07	SYBR	N1	Unkn	Sample 061
M08	Cy5	P1	Unkn	Sample 061
M08	SYBR	N1	Unkn	Sample 061
N07	Cy5	P1	Unkn	Sample 062
N07	SYBR	N1	Unkn	Sample 062
N08	Cy5	P1	Unkn	Sample 062
N08	SYBR	N1	Unkn	Sample 062
O07	Cy5	P1	Unkn	Sample 063
O07	SYBR	N1	Unkn	Sample 063
O08	Cy5	P1	Unkn	Sample 063
O08	SYBR	N1	Unkn	Sample 063
P07	Cy5	P1	Unkn	Sample 064
P07	SYBR	N1	Unkn	Sample 064
P08	Cy5	P1	Unkn	Sample 064
P08	SYBR	N1	Unkn	Sample 064
A09	Cy5	P1	Unkn	Sample 065
A09	SYBR	N1	Unkn	Sample 065
A10	Cy5	P1	Unkn	Sample 065
A10	SYBR	N1	Unkn	Sample 065
B09	Cy5	P1	Unkn	Sample 066
B09	SYBR	N1	Unkn	Sample 066
B10	Cy5	P1	Unkn	Sample 066
B10	SYBR	N1	Unkn	Sample 066
C09	Cy5	P1	Unkn	Sample 067
C09	SYBR	N1	Unkn	Sample 067
C10	Cy5	P1	Unkn	Sample 067
C10	SYBR	N1	Unkn	Sample 067

D09	Cy5	P1	Unkn	Sample 068
D09	SYBR	N1	Unkn	Sample 068
D10	Cy5	P1	Unkn	Sample 068
D10	SYBR	N1	Unkn	Sample 068
E09	Cy5	P1	Unkn	Sample 069
E09	SYBR	N1	Unkn	Sample 069
E10	Cy5	P1	Unkn	Sample 069
E10	SYBR	N1	Unkn	Sample 069
F09	Cy5	P1	Unkn	Sample 070
F09	SYBR	N1	Unkn	Sample 070
F10	Cy5	P1	Unkn	Sample 070
F10	SYBR	N1	Unkn	Sample 070
G09	Cy5	P1	Unkn	Sample 071
G09	SYBR	N1	Unkn	Sample 071
G10	Cy5	P1	Unkn	Sample 071
G10	SYBR	N1	Unkn	Sample 071
H09	Cy5	P1	Unkn	Sample 072
H09	SYBR	N1	Unkn	Sample 072
H10	Cy5	P1	Unkn	Sample 072
H10	SYBR	N1	Unkn	Sample 072
I09	Cy5	P1	Unkn	Sample 073
I09	SYBR	N1	Unkn	Sample 073
I10	Cy5	P1	Unkn	Sample 073
I10	SYBR	N1	Unkn	Sample 073
J09	Cy5	P1	Unkn	Sample 074
J09	SYBR	N1	Unkn	Sample 074
J10	Cy5	P1	Unkn	Sample 074
J10	SYBR	N1	Unkn	Sample 074
K09	Cy5	P1	Unkn	Sample 075
K09	SYBR	N1	Unkn	Sample 075
K10	Cy5	P1	Unkn	Sample 075
K10	SYBR	N1	Unkn	Sample 075
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L09	SYBR	N1	Unkn	Sample 076
L10	Cy5	P1	Unkn	Sample 076
L10	SYBR	N1	Unkn	Sample 076
M09	Cy5	P1	Unkn	Sample 077
M09	SYBR	N1	Unkn	Sample 077
M10	Cy5	P1	Unkn	Sample 077
M10	SYBR	N1	Unkn	Sample 077
N09	Cy5	P1	Unkn	Sample 078
N09	SYBR	N1	Unkn	Sample 078
N10	Cy5	P1	Unkn	Sample 078
N10	SYBR	N1	Unkn	Sample 078
O09	Cy5	P1	Unkn	Sample 079
O09	SYBR	N1	Unkn	Sample 079
O10	Cy5	P1	Unkn	Sample 079

O10	SYBR	N1	Unkn	Sample 079
P09	Cy5	P1	Unkn	Sample 080
P09	SYBR	N1	Unkn	Sample 080
P10	Cy5	P1	Unkn	Sample 080
P10	SYBR	N1	Unkn	Sample 080
A11	Cy5	P1	Unkn	Sample 081
A11	SYBR	N1	Unkn	Sample 081
A12	Cy5	P1	Unkn	Sample 081
A12	SYBR	N1	Unkn	Sample 081
B11	Cy5	P1	Unkn	Sample 082
B11	SYBR	N1	Unkn	Sample 082
B12	Cy5	P1	Unkn	Sample 082
B12	SYBR	N1	Unkn	Sample 082
C11	Cy5	P1	Unkn	Sample 083
C11	SYBR	N1	Unkn	Sample 083
C12	Cy5	P1	Unkn	Sample 083
C12	SYBR	N1	Unkn	Sample 083
D11	Cy5	P1	Unkn	Sample 084
D11	SYBR	N1	Unkn	Sample 084
D12	Cy5	P1	Unkn	Sample 084
D12	SYBR	N1	Unkn	Sample 084
E11	Cy5	P1	Unkn	Sample 085
E11	SYBR	N1	Unkn	Sample 085
E12	Cy5	P1	Unkn	Sample 085
E12	SYBR	N1	Unkn	Sample 085
F11	Cy5	P1	Unkn	Sample 086
F11	SYBR	N1	Unkn	Sample 086
F12	Cy5	P1	Unkn	Sample 086
F12	SYBR	N1	Unkn	Sample 086
G11	Cy5	P1	Unkn	Sample 087
G11	SYBR	N1	Unkn	Sample 087
G12	Cy5	P1	Unkn	Sample 087
G12	SYBR	N1	Unkn	Sample 087
H11	Cy5	P1	Unkn	Sample 088
H11	SYBR	N1	Unkn	Sample 088
H12	Cy5	P1	Unkn	Sample 088
H12	SYBR	N1	Unkn	Sample 088
I11	Cy5	P1	Unkn	Sample 089
I11	SYBR	N1	Unkn	Sample 089
I12	Cy5	P1	Unkn	Sample 089
I12	SYBR	N1	Unkn	Sample 089
J11	Cy5	P1	Unkn	Sample 090
J11	SYBR	N1	Unkn	Sample 090
J12	Cy5	P1	Unkn	Sample 090
J12	SYBR	N1	Unkn	Sample 090
K11	Cy5	P1	Unkn	Sample 091
K11	SYBR	N1	Unkn	Sample 091

K12	Cy5	P1	Unkn	Sample 091
K12	SYBR	N1	Unkn	Sample 091
L11	Cy5	P1	Unkn	Sample 092
L11	SYBR	N1	Unkn	Sample 092
L12	Cy5	P1	Unkn	Sample 092
L12	SYBR	N1	Unkn	Sample 092
M11	Cy5	P1	Unkn	Sample 093
M11	SYBR	N1	Unkn	Sample 093
M12	Cy5	P1	Unkn	Sample 093
M12	SYBR	N1	Unkn	Sample 093
N11	Cy5	P1	Unkn	Sample 094
N11	SYBR	N1	Unkn	Sample 094
N12	Cy5	P1	Unkn	Sample 094
N12	SYBR	N1	Unkn	Sample 094
O11	Cy5	P1	Unkn	Sample 095
O11	SYBR	N1	Unkn	Sample 095
O12	Cy5	P1	Unkn	Sample 095
O12	SYBR	N1	Unkn	Sample 095
P11	Cy5	P1	Unkn	Sample 096
P11	SYBR	N1	Unkn	Sample 096
P12	Cy5	P1	Unkn	Sample 096
P12	SYBR	N1	Unkn	Sample 096
A13	Cy5	P1	Unkn	Sample 097
A13	SYBR	N1	Unkn	Sample 097
A14	Cy5	P1	Unkn	Sample 097
A14	SYBR	N1	Unkn	Sample 097
B13	Cy5	P1	Unkn	Sample 098
B13	SYBR	N1	Unkn	Sample 098
B14	Cy5	P1	Unkn	Sample 098
B14	SYBR	N1	Unkn	Sample 098
C13	Cy5	P1	Unkn	Sample 099
C13	SYBR	N1	Unkn	Sample 099
C14	Cy5	P1	Unkn	Sample 099
C14	SYBR	N1	Unkn	Sample 099
D13	Cy5	P1	Unkn	Sample 100
D13	SYBR	N1	Unkn	Sample 100
D14	Cy5	P1	Unkn	Sample 100
D14	SYBR	N1	Unkn	Sample 100
E13	Cy5	P1	Unkn	Sample 101
E13	SYBR	N1	Unkn	Sample 101
E14	Cy5	P1	Unkn	Sample 101
E14	SYBR	N1	Unkn	Sample 101
F13	Cy5	P1	Unkn	Sample 102
F13	SYBR	N1	Unkn	Sample 102
F14	Cy5	P1	Unkn	Sample 102
F14	SYBR	N1	Unkn	Sample 102
G13	Cy5	P1	Unkn	Sample 103

G13	SYBR	N1	Unkn	Sample 103
G14	Cy5	P1	Unkn	Sample 103
G14	SYBR	N1	Unkn	Sample 103
H13	Cy5	P1	Unkn	Sample 104
H13	SYBR	N1	Unkn	Sample 104
H14	Cy5	P1	Unkn	Sample 104
H14	SYBR	N1	Unkn	Sample 104
I13	Cy5	P1	Unkn	Sample 105
I13	SYBR	N1	Unkn	Sample 105
I14	Cy5	P1	Unkn	Sample 105
I14	SYBR	N1	Unkn	Sample 105
J13	Cy5	P1	Unkn	Sample 106
J13	SYBR	N1	Unkn	Sample 106
J14	Cy5	P1	Unkn	Sample 106
J14	SYBR	N1	Unkn	Sample 106
K13	Cy5	P1	Unkn	Sample 107
K13	SYBR	N1	Unkn	Sample 107
K14	Cy5	P1	Unkn	Sample 107
K14	SYBR	N1	Unkn	Sample 107
L13	Cy5	P1	Unkn	Sample 108
L13	SYBR	N1	Unkn	Sample 108
L14	Cy5	P1	Unkn	Sample 108
L14	SYBR	N1	Unkn	Sample 108
M13	Cy5	P1	Unkn	Sample 109
M13	SYBR	N1	Unkn	Sample 109
M14	Cy5	P1	Unkn	Sample 109
M14	SYBR	N1	Unkn	Sample 109
N13	Cy5	P1	Unkn	Sample 110
N13	SYBR	N1	Unkn	Sample 110
N14	Cy5	P1	Unkn	Sample 110
N14	SYBR	N1	Unkn	Sample 110
O13	Cy5	P1	Unkn	Sample 111
O13	SYBR	N1	Unkn	Sample 111
O14	Cy5	P1	Unkn	Sample 111
O14	SYBR	N1	Unkn	Sample 111
P13	Cy5	P1	Unkn	Sample 112
P13	SYBR	N1	Unkn	Sample 112
P14	Cy5	P1	Unkn	Sample 112
P14	SYBR	N1	Unkn	Sample 112
A15	Cy5	P1	Unkn	Sample 113
A15	SYBR	N1	Unkn	Sample 113
A16	Cy5	P1	Unkn	Sample 113
A16	SYBR	N1	Unkn	Sample 113
B15	Cy5	P1	Unkn	Sample 114
B15	SYBR	N1	Unkn	Sample 114
B16	Cy5	P1	Unkn	Sample 114
B16	SYBR	N1	Unkn	Sample 114

C15	Cy5	P1	Unkn	Sample 115
C15	SYBR	N1	Unkn	Sample 115
C16	Cy5	P1	Unkn	Sample 115
C16	SYBR	N1	Unkn	Sample 115
D15	Cy5	P1	Unkn	Sample 116
D15	SYBR	N1	Unkn	Sample 116
D16	Cy5	P1	Unkn	Sample 116
D16	SYBR	N1	Unkn	Sample 116
E15	Cy5	P1	Unkn	Sample 117
E15	SYBR	N1	Unkn	Sample 117
E16	Cy5	P1	Unkn	Sample 117
E16	SYBR	N1	Unkn	Sample 117
F15	Cy5	P1	Unkn	Sample 118
F15	SYBR	N1	Unkn	Sample 118
F16	Cy5	P1	Unkn	Sample 118
F16	SYBR	N1	Unkn	Sample 118
G15	Cy5	P1	Unkn	Sample 119
G15	SYBR	N1	Unkn	Sample 119
G16	Cy5	P1	Unkn	Sample 119
G16	SYBR	N1	Unkn	Sample 119
H15	Cy5	P1	Unkn	Sample 120
H15	SYBR	N1	Unkn	Sample 120
H16	Cy5	P1	Unkn	Sample 120
H16	SYBR	N1	Unkn	Sample 120
I15	Cy5	P1	Unkn	Sample 121
I15	SYBR	N1	Unkn	Sample 121
I16	Cy5	P1	Unkn	Sample 121
I16	SYBR	N1	Unkn	Sample 121
J15	Cy5	P1	Unkn	Sample 122
J15	SYBR	N1	Unkn	Sample 122
J16	Cy5	P1	Unkn	Sample 122
J16	SYBR	N1	Unkn	Sample 122
K15	Cy5	P1	Unkn	Sample 123
K15	SYBR	N1	Unkn	Sample 123
K16	Cy5	P1	Unkn	Sample 123
K16	SYBR	N1	Unkn	Sample 123
L15	Cy5	P1	Unkn	Sample 124
L15	SYBR	N1	Unkn	Sample 124
L16	Cy5	P1	Unkn	Sample 124
L16	SYBR	N1	Unkn	Sample 124
M15	Cy5	P1	Unkn	Sample 125
M15	SYBR	N1	Unkn	Sample 125
M16	Cy5	P1	Unkn	Sample 125
M16	SYBR	N1	Unkn	Sample 125
N15	Cy5	P1	Unkn	Sample 126
N15	SYBR	N1	Unkn	Sample 126
N16	Cy5	P1	Unkn	Sample 126

N16	SYBR	N1	Unkn	Sample 126
O15	Cy5	P1	Unkn	Sample 127
O15	SYBR	N1	Unkn	Sample 127
O16	Cy5	P1	Unkn	Sample 127
O16	SYBR	N1	Unkn	Sample 127
P15	Cy5	P1	Unkn	Sample 128
P15	SYBR	N1	Unkn	Sample 128
P16	Cy5	P1	Unkn	Sample 128
P16	SYBR	N1	Unkn	Sample 128
A17	Cy5	P1	Unkn	Sample 129
A17	SYBR	N1	Unkn	Sample 129
A18	Cy5	P1	Unkn	Sample 129
A18	SYBR	N1	Unkn	Sample 129
B17	Cy5	P1	Unkn	Sample 130
B17	SYBR	N1	Unkn	Sample 130
B18	Cy5	P1	Unkn	Sample 130
B18	SYBR	N1	Unkn	Sample 130
C17	Cy5	P1	Unkn	Sample 131
C17	SYBR	N1	Unkn	Sample 131
C18	Cy5	P1	Unkn	Sample 131
C18	SYBR	N1	Unkn	Sample 131
D17	Cy5	P1	Unkn	Sample 132
D17	SYBR	N1	Unkn	Sample 132
D18	Cy5	P1	Unkn	Sample 132
D18	SYBR	N1	Unkn	Sample 132
E17	Cy5	P1	Unkn	Sample 133
E17	SYBR	N1	Unkn	Sample 133
E18	Cy5	P1	Unkn	Sample 133
E18	SYBR	N1	Unkn	Sample 133
F17	Cy5	P1	Unkn	Sample 134
F17	SYBR	N1	Unkn	Sample 134
F18	Cy5	P1	Unkn	Sample 134
F18	SYBR	N1	Unkn	Sample 134
G17	Cy5	P1	Unkn	Sample 135
G17	SYBR	N1	Unkn	Sample 135
G18	Cy5	P1	Unkn	Sample 135
G18	SYBR	N1	Unkn	Sample 135
H17	Cy5	P1	Unkn	Sample 136
H17	SYBR	N1	Unkn	Sample 136
H18	Cy5	P1	Unkn	Sample 136
H18	SYBR	N1	Unkn	Sample 136
I17	Cy5	P1	Unkn	Sample 137
I17	SYBR	N1	Unkn	Sample 137
I18	Cy5	P1	Unkn	Sample 137
I18	SYBR	N1	Unkn	Sample 137
J17	Cy5	P1	Unkn	Sample 138
J17	SYBR	N1	Unkn	Sample 138

J18	Cy5	P1	Unkn	Sample 138
J18	SYBR	N1	Unkn	Sample 138
K17	Cy5	P1	Unkn	Sample 139
K17	SYBR	N1	Unkn	Sample 139
K18	Cy5	P1	Unkn	Sample 139
K18	SYBR	N1	Unkn	Sample 139
L17	Cy5	P1	Unkn	Sample 140
L17	SYBR	N1	Unkn	Sample 140
L18	Cy5	P1	Unkn	Sample 140
L18	SYBR	N1	Unkn	Sample 140
M17	Cy5	P1	Unkn	Sample 141
M17	SYBR	N1	Unkn	Sample 141
M18	Cy5	P1	Unkn	Sample 141
M18	SYBR	N1	Unkn	Sample 141
N17	Cy5	P1	Unkn	Sample 142
N17	SYBR	N1	Unkn	Sample 142
N18	Cy5	P1	Unkn	Sample 142
N18	SYBR	N1	Unkn	Sample 142
O17	Cy5	P1	Unkn	Sample 143
O17	SYBR	N1	Unkn	Sample 143
O18	Cy5	P1	Unkn	Sample 143
O18	SYBR	N1	Unkn	Sample 143
P17	Cy5	P1	Unkn	Sample 144
P17	SYBR	N1	Unkn	Sample 144
P18	Cy5	P1	Unkn	Sample 144
P18	SYBR	N1	Unkn	Sample 144
A19	Cy5	P1	Unkn	Sample 145
A19	SYBR	N1	Unkn	Sample 145
A20	Cy5	P1	Unkn	Sample 145
A20	SYBR	N1	Unkn	Sample 145
B19	Cy5	P1	Unkn	Sample 146
B19	SYBR	N1	Unkn	Sample 146
B20	Cy5	P1	Unkn	Sample 146
B20	SYBR	N1	Unkn	Sample 146
C19	Cy5	P1	Unkn	Sample 147
C19	SYBR	N1	Unkn	Sample 147
C20	Cy5	P1	Unkn	Sample 147
C20	SYBR	N1	Unkn	Sample 147
D19	Cy5	P1	Unkn	Sample 148
D19	SYBR	N1	Unkn	Sample 148
D20	Cy5	P1	Unkn	Sample 148
D20	SYBR	N1	Unkn	Sample 148
E19	Cy5	P1	Unkn	Sample 149
E19	SYBR	N1	Unkn	Sample 149
E20	Cy5	P1	Unkn	Sample 149
E20	SYBR	N1	Unkn	Sample 149
F19	Cy5	P1	Unkn	Sample 150

F19	SYBR	N1	Unkn	Sample 150
F20	Cy5	P1	Unkn	Sample 150
F20	SYBR	N1	Unkn	Sample 150
G19	Cy5	P1	Unkn	Sample 151
G19	SYBR	N1	Unkn	Sample 151
G20	Cy5	P1	Unkn	Sample 151
G20	SYBR	N1	Unkn	Sample 151
H19	Cy5	P1	Unkn	Sample 152
H19	SYBR	N1	Unkn	Sample 152
H20	Cy5	P1	Unkn	Sample 152
H20	SYBR	N1	Unkn	Sample 152
I19	Cy5	P1	Unkn	Sample 153
I19	SYBR	N1	Unkn	Sample 153
I20	Cy5	P1	Unkn	Sample 153
I20	SYBR	N1	Unkn	Sample 153
J19	Cy5	P1	Unkn	Sample 154
J19	SYBR	N1	Unkn	Sample 154
J20	Cy5	P1	Unkn	Sample 154
J20	SYBR	N1	Unkn	Sample 154
K19	Cy5	P1	Unkn	Sample 155
K19	SYBR	N1	Unkn	Sample 155
K20	Cy5	P1	Unkn	Sample 155
K20	SYBR	N1	Unkn	Sample 155
L19	Cy5	P1	Unkn	Sample 156
L19	SYBR	N1	Unkn	Sample 156
L20	Cy5	P1	Unkn	Sample 156
L20	SYBR	N1	Unkn	Sample 156
M19	Cy5	P1	Unkn	Sample 157
M19	SYBR	N1	Unkn	Sample 157
M20	Cy5	P1	Unkn	Sample 157
M20	SYBR	N1	Unkn	Sample 157
N19	Cy5	P1	Unkn	Sample 158
N19	SYBR	N1	Unkn	Sample 158
N20	Cy5	P1	Unkn	Sample 158
N20	SYBR	N1	Unkn	Sample 158
O19	Cy5	P1	Unkn	Sample 159
O19	SYBR	N1	Unkn	Sample 159
O20	Cy5	P1	Unkn	Sample 159
O20	SYBR	N1	Unkn	Sample 159
P19	Cy5	P1	Unkn	Sample 160
P19	SYBR	N1	Unkn	Sample 160
P20	Cy5	P1	Unkn	Sample 160
P20	SYBR	N1	Unkn	Sample 160
A21	Cy5	P1	Unkn	Sample 161
A21	SYBR	N1	Unkn	Sample 161
A22	Cy5	P1	Unkn	Sample 161
A22	SYBR	N1	Unkn	Sample 161

B21	Cy5	P1	Unkn	Sample 162
B21	SYBR	N1	Unkn	Sample 162
B22	Cy5	P1	Unkn	Sample 162
B22	SYBR	N1	Unkn	Sample 162
C21	Cy5	P1	Unkn	Sample 163
C21	SYBR	N1	Unkn	Sample 163
C22	Cy5	P1	Unkn	Sample 163
C22	SYBR	N1	Unkn	Sample 163
D21	Cy5	P1	Unkn	Sample 164
D21	SYBR	N1	Unkn	Sample 164
D22	Cy5	P1	Unkn	Sample 164
D22	SYBR	N1	Unkn	Sample 164
E21	Cy5	P1	Unkn	Sample 165
E21	SYBR	N1	Unkn	Sample 165
E22	Cy5	P1	Unkn	Sample 165
E22	SYBR	N1	Unkn	Sample 165
F21	Cy5	P1	Unkn	Sample 166
F21	SYBR	N1	Unkn	Sample 166
F22	Cy5	P1	Unkn	Sample 166
F22	SYBR	N1	Unkn	Sample 166
G21	Cy5	P1	Unkn	Sample 167
G21	SYBR	N1	Unkn	Sample 167
G22	Cy5	P1	Unkn	Sample 167
G22	SYBR	N1	Unkn	Sample 167
H21	Cy5	P1	Unkn	Sample 168
H21	SYBR	N1	Unkn	Sample 168
H22	Cy5	P1	Unkn	Sample 168
H22	SYBR	N1	Unkn	Sample 168
I21	Cy5	P1	Unkn	Sample 169
I21	SYBR	N1	Unkn	Sample 169
I22	Cy5	P1	Unkn	Sample 169
I22	SYBR	N1	Unkn	Sample 169
J21	Cy5	P1	Unkn	Sample 170
J21	SYBR	N1	Unkn	Sample 170
J22	Cy5	P1	Unkn	Sample 170
J22	SYBR	N1	Unkn	Sample 170
K21	Cy5	P1	Unkn	Sample 171
K21	SYBR	N1	Unkn	Sample 171
K22	Cy5	P1	Unkn	Sample 171
K22	SYBR	N1	Unkn	Sample 171
L21	Cy5	P1	Unkn	Sample 172
L21	SYBR	N1	Unkn	Sample 172
L22	Cy5	P1	Unkn	Sample 172
L22	SYBR	N1	Unkn	Sample 172
M21	Cy5	P1	Unkn	Sample 173
M21	SYBR	N1	Unkn	Sample 173
M22	Cy5	P1	Unkn	Sample 173

M22	SYBR	N1	Unkn	Sample 173
N21	Cy5	P1	Unkn	Sample 174
N21	SYBR	N1	Unkn	Sample 174
N22	Cy5	P1	Unkn	Sample 174
N22	SYBR	N1	Unkn	Sample 174
O21	Cy5	P1	Unkn	Sample 175
O21	SYBR	N1	Unkn	Sample 175
O22	Cy5	P1	Unkn	Sample 175
O22	SYBR	N1	Unkn	Sample 175
P21	Cy5	P1	Unkn	Sample 176
P21	SYBR	N1	Unkn	Sample 176
P22	Cy5	P1	Unkn	Sample 176
P22	SYBR	N1	Unkn	Sample 176
A23	Cy5	P1	Unkn	Sample 177
A23	SYBR	N1	Unkn	Sample 177
A24	Cy5	P1	Unkn	Sample 177
A24	SYBR	N1	Unkn	Sample 177
B23	Cy5	P1	Unkn	Sample 178
B23	SYBR	N1	Unkn	Sample 178
B24	Cy5	P1	Unkn	Sample 178
B24	SYBR	N1	Unkn	Sample 178
C23	Cy5	P1	Unkn	Sample 179
C23	SYBR	N1	Unkn	Sample 179
C24	Cy5	P1	Unkn	Sample 179
C24	SYBR	N1	Unkn	Sample 179
D23	Cy5	P1	Unkn	Sample 180
D23	SYBR	N1	Unkn	Sample 180
D24	Cy5	P1	Unkn	Sample 180
D24	SYBR	N1	Unkn	Sample 180
E23	Cy5	P1	Unkn	Sample 181
E23	SYBR	N1	Unkn	Sample 181
E24	Cy5	P1	Unkn	Sample 181
E24	SYBR	N1	Unkn	Sample 181
F23	Cy5	P1	Unkn	Sample 182
F23	SYBR	N1	Unkn	Sample 182
F24	Cy5	P1	Unkn	Sample 182
F24	SYBR	N1	Unkn	Sample 182
G23	Cy5	P1	Unkn	Sample 183
G23	SYBR	N1	Unkn	Sample 183
G24	Cy5	P1	Unkn	Sample 183
G24	SYBR	N1	Unkn	Sample 183
H23	Cy5	P1	Unkn	Sample 184
H23	SYBR	N1	Unkn	Sample 184
H24	Cy5	P1	Unkn	Sample 184
H24	SYBR	N1	Unkn	Sample 184
I23	Cy5	P1	Unkn	Sample 185
I23	SYBR	N1	Unkn	Sample 185

	I24	Cy5	P1	Unkn	Sample 185
	I24	SYBR	N1	Unkn	Sample 185
	J23	Cy5	P1	Unkn	Sample 186
	J23	SYBR	N1	Unkn	Sample 186
	J24	Cy5	P1	Unkn	Sample 186
	J24	SYBR	N1	Unkn	Sample 186
	K23	Cy5	P1	Unkn	Sample 187
	K23	SYBR	N1	Unkn	Sample 187
	K24	Cy5	P1	Unkn	Sample 187
	K24	SYBR	N1	Unkn	Sample 187
	L23	Cy5	P1	Unkn	Sample 188
	L23	SYBR	N1	Unkn	Sample 188
	L24	Cy5	P1	Unkn	Sample 188
	L24	SYBR	N1	Unkn	Sample 188
SCAN Bar code here	M23	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M23	SYBR	N1	Unkn	Sample 189
SCAN Bar code here	M24	Cy5	P1	Unkn	Sample 189
SCAN Bar code here	M24	SYBR	N1	Unkn	Sample 189

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[redacted]

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[redacted]

[redacted]

[redacted]

Thermocycler
Ada
Barbara
Curie
Dorothy
Elizabeth
Frances
Gerty
Helen
Irene
Jennifer
Kitty
Linda

Robots
Arnie
Bubba
Cletus
Daryll
Ernie
Floyd
Gus
Homer
Ira
Jeb

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Rack	Position	Sample	Well 1	Well 2
1	1A	1	A1	A2
1	1B	2	B1	B2
1	1C	3	C1	C2
1	2A	4	D1	D2
1	2B	5	E1	E2
1	2C	6	F1	F2
2	1A	7	G1	G2
2	1B	8	H1	H2
2	1C	9	I1	I2
2	2A	10	J1	J2
2	2B	11	K1	K2
2	2C	12	L1	L2
4	1A	13	M1	M2
4	1B	14	N1	N2
4	1C	15	O1	O2
4	2A	16	P1	P2
4	2B	17	A3	A4
4	2C	18	B3	B4
5	1A	19	C3	C4
5	1B	20	D3	D4
5	1C	21	E3	E4
5	2A	22	F3	F4
5	2B	23	G3	G4
5	2C	24	H3	H4
7	1A	25	I3	I4
7	1B	26	J3	J4
7	1C	27	K3	K4
7	2A	28	L3	L4
7	2B	29	M3	M4
7	2C	30	N3	N4
8	1A	31	O3	O4
8	1B	32	P3	P4
8	1C	33	A5	A6
8	2A	34	B5	B6
8	2B	35	C5	C6
8	2C	36	D5	D6
10	1A	37	E5	E6
10	1B	38	F5	F6
10	1C	39	G5	G6
10	2A	40	H5	H6
10	2B	41	I5	I6
10	2C	42	J5	J6
11	1A	43	K5	K6
11	1B	44	L5	L6
11	1C	45	M5	M6
11	2A	46	N5	N6

11	2B	47	O5	O6
11	2C	48	P5	P6
1	1A	49	A7	A8
1	1B	50	B7	B8
1	1C	51	C7	C8
1	2A	52	D7	D8
1	2B	53	E7	E8
1	2C	54	F7	F8
2	1A	55	G7	G8
2	1B	56	H7	H8
2	1C	57	I7	I8
2	2A	58	J7	J8
2	2B	59	K7	K8
2	2C	60	L7	L8
4	1A	61	M7	M8
4	1B	62	N7	N8
4	1C	63	O7	O8
4	2A	64	P7	P8
4	2B	65	A9	A10
4	2C	66	B9	B10
5	1A	67	C9	C10
5	1B	68	D9	D10
5	1C	69	E9	E10
5	2A	70	F9	F10
5	2B	71	G9	G10
5	2C	72	H9	H10
7	1A	73	I9	I10
7	1B	74	J9	J10
7	1C	75	K9	K10
7	2A	76	L9	L10
7	2B	77	M9	M10
7	2C	78	N9	N10
8	1A	79	O9	O10
8	1B	80	P9	P10
8	1C	81	A11	A12
8	2A	82	B11	B12
8	2B	83	C11	C12
8	2C	84	D11	D12
10	1A	85	E11	E12
10	1B	86	F11	F12
10	1C	87	G11	G12
10	2A	88	H11	H12
10	2B	89	I11	I12
10	2C	90	J11	J12
11	1A	91	K11	K12
11	1B	92	L11	L12
11	1C	93	M11	M12

11	2A	94	N11	N12
11	2B	95	O11	O12
11	2C	96	P11	P12
1	1A	97	A13	A14
1	1B	98	B13	B14
1	1C	99	C13	C14
1	2A	100	D13	D14
1	2B	101	E13	E14
1	2C	102	F13	F14
2	1A	103	G13	G14
2	1B	104	H13	H14
2	1C	105	I13	I14
2	2A	106	J13	J14
2	2B	107	K13	K14
2	2C	108	L13	L14
4	1A	109	M13	M14
4	1B	110	N13	N14
4	1C	111	O13	O14
4	2A	112	P13	P14
4	2B	113	A15	A16
4	2C	114	B15	B16
5	1A	115	C15	C16
5	1B	116	D15	D16
5	1C	117	E15	E16
5	2A	118	F15	F16
5	2B	119	G15	G16
5	2C	120	H15	H16
7	1A	121	I15	I16
7	1B	122	J15	J16
7	1C	123	K15	K16
7	2A	124	L15	L16
7	2B	125	M15	M16
7	2C	126	N15	N16
8	1A	127	O15	O16
8	1B	128	P15	P16
8	1C	129	A17	A18
8	2A	130	B17	B18
8	2B	131	C17	C18
8	2C	132	D17	D18
10	1A	133	E17	E18
10	1B	134	F17	F18
10	1C	135	G17	G18
10	2A	136	H17	H18
10	2B	137	I17	I18
10	2C	138	J17	J18
11	1A	139	K17	K18
11	1B	140	L17	L18

11	1C	141	M17	M18
11	2A	142	N17	N18
11	2B	143	O17	O18
11	2C	144	P17	P18
1	1A	145	A19	A20
1	1B	146	B19	B20
1	1C	147	C19	C20
1	2A	148	D19	D20
1	2B	149	E19	E20
1	2C	150	F19	F20
2	1A	151	G19	G20
2	1B	152	H19	H20
2	1C	153	I19	I20
2	2A	154	J19	J20
2	2B	155	K19	K20
2	2C	156	L19	L20
4	1A	157	M19	M20
4	1B	158	N19	N20
4	1C	159	O19	O20
4	2A	160	P19	P20
4	2B	161	A21	A22
4	2C	162	B21	B22
5	1A	163	C21	C22
5	1B	164	D21	D22
5	1C	165	E21	E22
5	2A	166	F21	F22
5	2B	167	G21	G22
5	2C	168	H21	H22
7	1A	169	I21	I22
7	1B	170	J21	J22
7	1C	171	K21	K22
7	2A	172	L21	L22
7	2B	173	M21	M22
7	2C	174	N21	N22
8	1A	175	O21	O22
8	1B	176	P21	P22
8	1C	177	A23	A24
8	2A	178	B23	B24
8	2B	179	C23	C24
8	2C	180	D23	D24
10	1A	181	E23	E24
10	1B	182	F23	F24
10	1C	183	G23	G24
10	2A	184	H23	H24
10	2B	185	I23	I24
10	2C	186	J23	J24
11	1A	187	K23	K24

11	1B	188	L23	L24
11	1C	189	M23	M24
Negative Control			N23	N24
Positive Control			O23	O24
Blank Master Mix			P23	P24

Rack	Position	Sample	Well 1	Well 2
1	1A	1	A1	A2
1	1B	2	B1	B2
1	1C	3	C1	C2
1	2A	4	D1	D2
1	2B	5	E1	E2
1	2C	6	F1	F2
2	1A	7	G1	G2
2	1B	8	H1	H2
2	1C	9	I1	I2
2	2A	10	J1	J2
2	2B	11	K1	K2
2	2C	12	L1	L2
4	1A	13	M1	M2
4	1B	14	N1	N2
4	1C	15	O1	O2
4	2A	16	P1	P2
4	2B	17	A3	A4
4	2C	18	B3	B4
5	1A	19	C3	C4
5	1B	20	D3	D4
5	1C	21	E3	E4
5	2A	22	F3	F4
5	2B	23	G3	G4
5	2C	24	H3	H4
7	1A	25	I3	I4
7	1B	26	J3	J4
7	1C	27	K3	K4
7	2A	28	L3	L4
7	2B	29	M3	M4
7	2C	30	N3	N4
8	1A	31	O3	O4
8	1B	32	P3	P4
8	1C	33	A5	A6

8	2A	34	B5	B6
8	2B	35	C5	C6
8	2C	36	D5	D6
10	1A	37	E5	E6
10	1B	38	F5	F6
10	1C	39	G5	G6
10	2A	40	H5	H6
10	2B	41	I5	I6
10	2C	42	J5	J6
11	1A	43	K5	K6
11	1B	44	L5	L6
11	1C	45	M5	M6
11	2A	46	N5	N6
11	2B	47	O5	O6
11	2C	48	P5	P6
1	1A	49	A7	A8
1	1B	50	B7	B8
1	1C	51	C7	C8
1	2A	52	D7	D8
1	2B	53	E7	E8
1	2C	54	F7	F8
2	1A	55	G7	G8
2	1B	56	H7	H8
2	1C	57	I7	I8
2	2A	58	J7	J8
2	2B	59	K7	K8
2	2C	60	L7	L8
4	1A	61	M7	M8
4	1B	62	N7	N8
4	1C	63	O7	O8
4	2A	64	P7	P8
4	2B	65	A9	A10
4	2C	66	B9	B10
5	1A	67	C9	C10

5	1B	68	D9	D10
5	1C	69	E9	E10
5	2A	70	F9	F10
5	2B	71	G9	G10
5	2C	72	H9	H10
7	1A	73	I9	I10
7	1B	74	J9	J10
7	1C	75	K9	K10
7	2A	76	L9	L10
7	2B	77	M9	M10
7	2C	78	N9	N10
8	1A	79	O9	O10
8	1B	80	P9	P10
8	1C	81	A11	A12
8	2A	82	B11	B12
8	2B	83	C11	C12
8	2C	84	D11	D12
10	1A	85	E11	E12
10	1B	86	F11	F12
10	1C	87	G11	G12
10	2A	88	H11	H12
10	2B	89	I11	I12
10	2C	90	J11	J12
11	1A	91	K11	K12
11	1B	92	L11	L12
11	1C	93	M11	M12
11	2A	94	N11	N12
11	2B	95	O11	O12
11	2C	96	P11	P12
1	1A	97	A13	A14
1	1B	98	B13	B14
1	1C	99	C13	C14
1	2A	100	D13	D14
1	2B	101	E13	E14

1	2C	102	F13	F14
2	1A	103	G13	G14
2	1B	104	H13	H14
2	1C	105	I13	I14
2	2A	106	J13	J14
2	2B	107	K13	K14
2	2C	108	L13	L14
4	1A	109	M13	M14
4	1B	110	N13	N14
4	1C	111	O13	O14
4	2A	112	P13	P14
4	2B	113	A15	A16
4	2C	114	B15	B16
5	1A	115	C15	C16
5	1B	116	D15	D16
5	1C	117	E15	E16
5	2A	118	F15	F16
5	2B	119	G15	G16
5	2C	120	H15	H16
7	1A	121	I15	I16
7	1B	122	J15	J16
7	1C	123	K15	K16
7	2A	124	L15	L16
7	2B	125	M15	M16
7	2C	126	N15	N16
8	1A	127	O15	O16
8	1B	128	P15	P16
8	1C	129	A17	A18
8	2A	130	B17	B18
8	2B	131	C17	C18
8	2C	132	D17	D18
10	1A	133	E17	E18
10	1B	134	F17	F18
10	1C	135	G17	G18

10	2A	136	H17	H18
10	2B	137	I17	I18
10	2C	138	J17	J18
11	1A	139	K17	K18
11	1B	140	L17	L18
11	1C	141	M17	M18
11	2A	142	N17	N18
11	2B	143	O17	O18
11	2C	144	P17	P18
1	1A	145	A19	A20
1	1B	146	B19	B20
1	1C	147	C19	C20
1	2A	148	D19	D20
1	2B	149	E19	E20
1	2C	150	F19	F20
2	1A	151	G19	G20
2	1B	152	H19	H20
2	1C	153	I19	I20
2	2A	154	J19	J20
2	2B	155	K19	K20
2	2C	156	L19	L20
4	1A	157	M19	M20
4	1B	158	N19	N20
4	1C	159	O19	O20
4	2A	160	P19	P20
4	2B	161	A21	A22
4	2C	162	B21	B22
5	1A	163	C21	C22
5	1B	164	D21	D22
5	1C	165	E21	E22
5	2A	166	F21	F22
5	2B	167	G21	G22
5	2C	168	H21	H22
7	1A	169	I21	I22

7	1B	170	J21	J22
7	1C	171	K21	K22
7	2A	172	L21	L22
7	2B	173	M21	M22
7	2C	174	N21	N22
8	1A	175	O21	O22
8	1B	176	P21	P22
8	1C	177	A23	A24
8	2A	178	B23	B24
8	2B	179	C23	C24
8	2C	180	D23	D24
10	1A	181	E23	E24
10	1B	182	F23	F24
10	1C	183	G23	G24
10	2A	184	H23	H24
10	2B	185	I23	I24
10	2C	186	J23	J24
11	1A	187	K23	K24
11	1B	188	L23	L24
11	1C	189	M23	M24
Negative Control			N23	N24
Positive Control			O23	O24
Blank Master Mix			P23	P24

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