

Application Note

CAS-1200™ integration with Roche MagNA Pure® LC and COBAS® TaqMan® 48

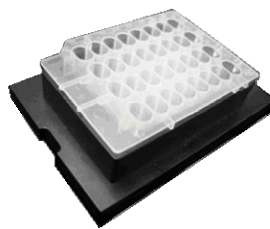
Application 1:

Sample transfer from the MagNA Pure LC System 32-well tray to flip cap storage tubes

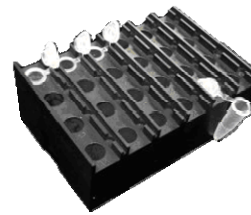
The Roche MagNA Pure LC System extracts 32 samples in 60–90 minutes. The output format of the MagNA Pure LC System is a tray and the tray is read in a horizontal manner from bottom left (#1) to top right (#32). The tray can be sealed with sealing film.

Pathology labs often find this format unacceptable for long term storage because:

1. To re-test one sample the seal must be removed, creating a contamination risk.
2. Many pathology laboratories prefer samples in individual flip-cap tubes labeled to their particular convention (barcode, patient name etc). The new CAS-1200 quick cap plate has been designed to accommodate 24 capped tubes with a diameter to accommodate labels on the side of each tube.



Roche MagNA Pure Plate (P/N 1516)



Flip Cap 24 x 1.5 mL Plate (P/N: 2421 & 2422)

Roche will say:

- The MagNA Pure LC System can already move samples in to 1.5 mL tubes

CAS-1200 advantage:

- CAS-1200 is much quicker

The MagNA Pure LC System takes between 20 and 30 minutes to move 32 samples into 32 flip cap tubes. The CAS-1200 takes around 5 minutes. The MagNA Pure LC System throughput is not high (extraction of 32 samples takes approx 90 minutes) so why waste extraction time on basic liquid handling?

- The CAS-1200 is less than half the price of a MagNA Pure LC System

It is cheaper to use a liquid handler to do liquid handling than to use an extractor to do liquid handling. Users can have 1 x CAS-1200 to handle samples from a number of MagNA Pure instruments, allowing the MagNA Pure(s) to extract more samples per day.

- The CAS-1200 is small, taking up much less space than the MagNA Pure LC System.

Why not move samples manually?

- With a CAS-1200 there will be no sample ID mix-ups due to pipetting or handling errors.
- The sample names can be downloaded using a USB drive from the MagNA Pure LC System computer to a simple text file (e.g. Notepad in MS Windows®) then imported into the CAS-1200 sample name field. After the run, a file will automatically be saved with the sample names and their destination wells.

Who would benefit?

Any pathology laboratory (particularly virology) using Roche instruments or Roche approved tests. Roche do not have a competing small robot.

Contact jennifer.mcmahon@corbettresearch.com for more information.

Right: A snapshot of a typical run file (software version 4.7.96G)

The aim of the run is to move 100µL (all of the liquid) from the MagNA Pure LC System tray to the flip-cap tube. An example run file is provided (separate file) for use with the CAS-1200N

Run File:

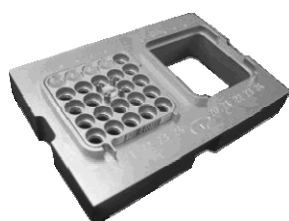


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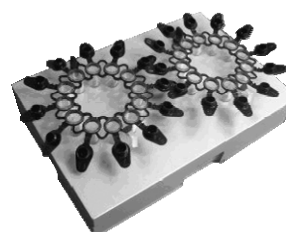


Application 2:
Transferring samples from the MagNA Pure LC System 32 well tray to Roche COBAS TaqMan 48 Analyzer

The COBAS TaqMan 48 Analyzer is a new instrument to replace the COBAS AMPLICOR Analyzer. CAS-1200 loading blocks are available for both instruments:



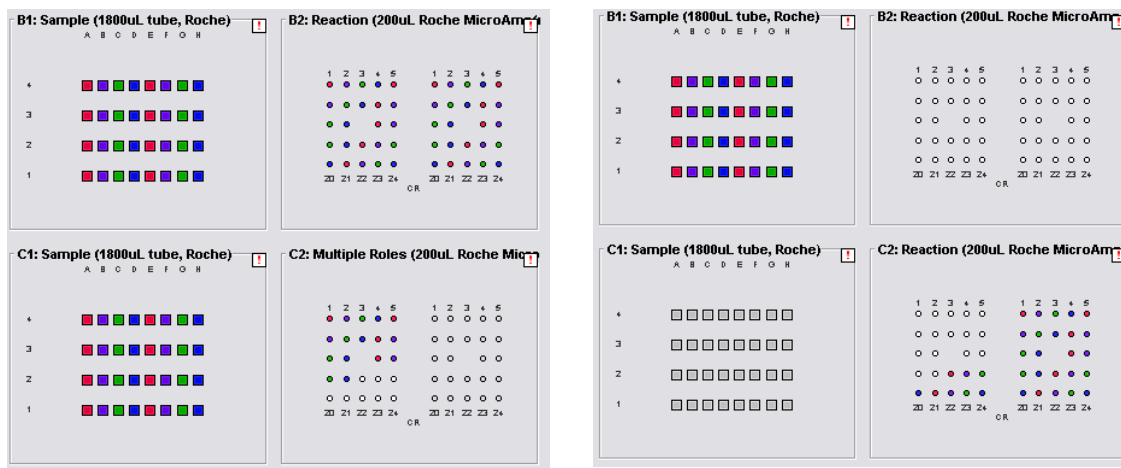
Roche Taqman Plate (P/N 2529)



Roche COBAS Plate (P/N 1552)

The samples can be loaded directly from the MagNA Pure LC system to the COBAS TaqMan 48 Analyzer. Two example run files are included (separate files) to illustrate sequential loading of the COBAS TaqMan 48 Analyzer. The MagNA Pure LC System extracts 32 samples per run but the COBAS TaqMan 48 Analyzer takes 48. This means that one tray loads not quite 2 blocks. The next run starts filling where the first run stopped.

A similar design can be used to fill up the COBAS AMPLICOR Analyzer rings.



Run 1: 2 × MagNA Pure LC System plates, positive and negative controls included in extraction

Run 2: 1 × MagNA Pure LC System plates, filling up remaining spaces from previous run

Run File(separate file):



COBAS Taqman 48
 plate 3.CAS4

Run File (separate file):



COBAS Taqman 48
 plates 1 & 2.CAS4