

# One-Step RT-qPCR Solutions

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Apto-Gen One-Step RT-qPCR Solutions have been specifically designed and developed for fast and highly sensitive RT-qPCR in a single tube. One-step RT-qPCR has fewer hands-on steps compared with conventional two-step RT-qPCR, reducing both setup time and manipulation errors.

One-Step RT-qPCR Solutions are optimized for the detection of multiplexed viral and bacterial pathogen targets from biological samples.

All Apto-Gen One-Step RT-qPCR Solutions are comprised of 2x master mix with a separate tube of 20x reverse transcriptase and RNase inhibitor enzyme mix.

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## One-Step RT-qPCR Mix

Universal solution for gene expression analyses and pathogen detection. Ideal for multiplexing gene-specific targets, and endogenous and exogenous controls.

One-Step RT-qPCR Mix shows higher activity and sensitivity in a 4-plex RT-qPCR assay in comparison with Supplier Q master mix (Figure 1).

Pack code	Pack size*
811100.5	5 mL
811100.100	100 mL
811100.1000	10 x 100 mL

\*custom pack sizes and formats available on request

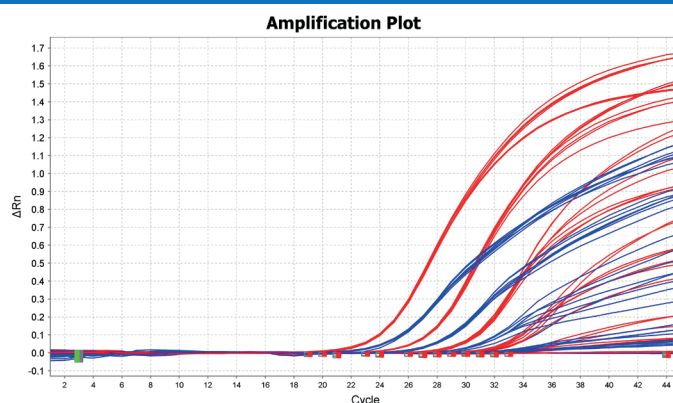


Figure 1. Gene expression profiling of four different human housekeeping gene transcripts by multiplex RT-qPCR. A comparison of One-Step RT-qPCR Mix (red) and Supplier Q master mix (blue) for target human GAPDH is shown

## One-Step RT-qPCR Mix C03

Customized for high tolerance to PCR-inhibitors, this solution is ideal for viral and bacterial target amplification. The formulation has been optimized for amplicons from respiratory, gastrointestinal, UTI and STI pathogen panels on patient samples.

One-Step RT-qPCR Mix C03 shows high RT-qPCR efficiency over a broad dynamic range for the detection of human FLUAV and FLUBV direct from buccal swab samples (Figure 2).

Pack code	Pack size*
811203.5	5 mL
811203.100	100 mL
811203.1000	10 x 100 mL

\*custom pack sizes and formats available on request

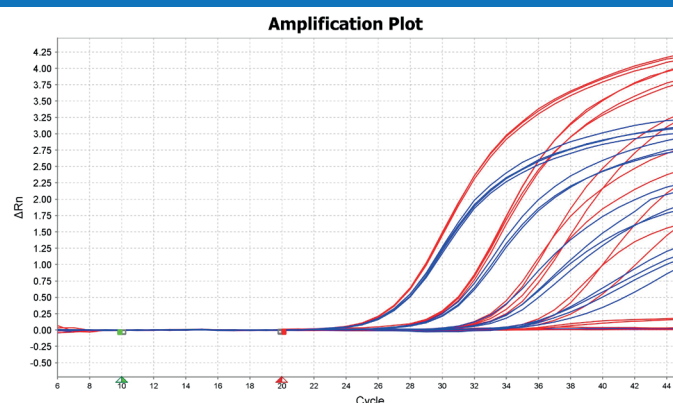


Figure 2. RT-qPCR of human FLUAV spiked into buccal swabs (equivalent to 20–2x10<sup>4</sup> copies) using One-Step RT-qPCR Mix C03 (red) and Supplier P master mix (blue)

## One-Step RT-qPCR Mix C04

COVID-19 testing solution specifically designed to detect SARS-CoV-2 and validated against the CDC 2019-nCoV\_N1, 2019-nCoV\_N2 and human RNase P diagnostic panel on human patient samples.

One-Step RT-qPCR Mix C04 shows equivalence to Supplier T master mix under recommended CDC conditions in a limit of detection RT-qPCR test (Figure 3).

Pack code	Pack size*
811200.5	5 mL
811200.100	100 mL
811200.1000	10 x 100 mL

\*custom pack sizes and formats available on request

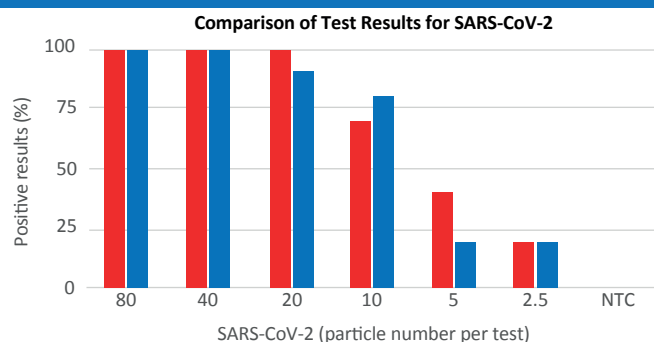


Figure 3. Detection of SARS-CoV-2 target amplicon: 2019-nCoV\_N1 (5–80 SARS-CoV-2 particles per test; n=20). The graph shows a comparison of One-Step RT-qPCR Mix C04 (red) and Supplier T master mix (blue)

For more information about Apto-Gen and our products:  
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