Coronavirus Outbreak

Novel RT-qPCR Reagent Solutions

Diagnostic testing for the new coronavirus strain COVID-19 can be carried out through molecular analysis or by ELISA. In the United States, the CDC employs molecular test methodologies to diagnose active infections and serology antibody testing for surveillance and investigational purposes. Since antibodies continue to circulate after an infection has cleared, serology tests can misdiagnose individuals who have previously been infected and have since recovered.

Although molecular diagnostics have served as the current standard for COVID-19 screening assays there have be challenges in obtaining accurate results, specifically in avoiding false-negative outcomes. False-negative results can arise from (1) low viral loads or unsuitable collection, (2) handling and/or storage of nasopharyngeal aspirate/swabs or throat swabs or (3) failure of the extraction, purification, reverse transcription or amplification of COVID-19. The latter can be monitored with a novel positive control, VLP-RNA Extraction Control. This control is added before the sample is processed, identifying true negative from false negative results that are caused by inhibition, nucleic acid degradation, sample processing error or thermocycler malfunction.

Fast 1-Step RT-qPCR Mix

- Formulated for fast, automated, high-throughput systems
- Sensitive detection of low-copy number DNA and RNA targets
- Highly suited to multiplex assays from a broad range of sample types

PRODUCT	CAT NO.	VOLUME	REACTIONS
Fast 1-Step RT-qPCR Mix	MDX032	10 mL	1,000 Rxn
		100 mL	10,000 Rxn

Lyo-Ready 1-Step RT-qPCR Mix

- Provided glycerol-free and pre-formulated with a specialized blend of lyo-excipients
- Suited for multiplex-assays and low-copy number targets
- Compatible with lyophilization into beads or cakes
- Ideal for developing fast, highly reproducible assays requiring ambient temperature transport and storage

PRODUCT	CAT NO.	VOLUME	REACTIONS
Lyo-Ready 1-Step RT-qPCR Mix	MDX024	10 mL	1,000 Rxn
		100 mL	10,000 Rxn

VLP-RNA Extraction Controls

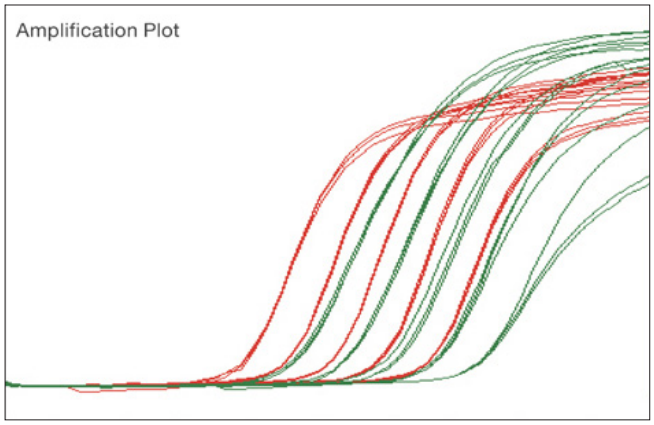
- Contains a defined number of copies of target RNA molecules, encapsidated within a virus-like particle (VLP)
- RNA sequence is customizable up to 1000nt
- Closely mimics the test sample, undergoing the same processing from lysis and extraction to RT-qPCR detection
- Non-infectious material for ease of handling and shipping
- Compatible with commonly used RNA extraction methods and lyophilization for creating freeze-dried mixes

PRODUCT	CAT NO.	SIZES
VLP-RNA Extraction Control Red	MDX068	1 mL (~1x10^4 copies/µL)
		20 mL (~1x10^4 copies/µL)
VLP-RNA Extraction Control Orange	MDX069	1 mL (~1x10^4 copies/µL)
		20 mL (~1x10^4 copies/µL)
VLP-RNA Extraction Control	MDX071	*Please enquire*

Product Highlights

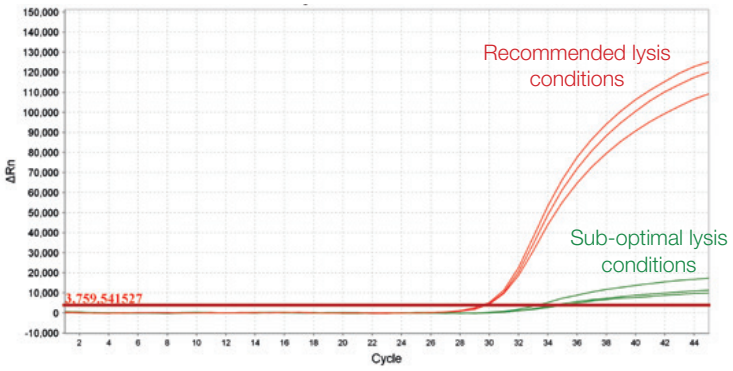
RT-qPCR Mixes are optimized for sensitive detection under fast cycling conditions

Mouse ß-actin was amplified in triplicate using gene specific primers and TaqMan probe according to the manufacturer's protocol, from a 10-fold serial dilution of RNA with Fast 1-Step RT-qPCR Mix (red) and a Competitor's mix (green). The results demonstrate that Fast 1-Step RT-qPCR Mix (Cat #**MDX032**) is more than 10x faster that the Competitor.



VLP-RNA Extraction Control monitors quality of sample lysis step

Amplification traces of VLP-RNA Extraction Control isolated using the ISOLATE II RNA Mini Kit with the recommended (red) or sub-optimal (green) lysis conditions. The RT-qPCR results demonstrate how the VLP-RNA Control Extraction can help to monitor the quality of the sample lysis step.



Ordering information:

USA
5171 Wilfong Road
Memphis, Tennessee 38134
Fax: +1 901-333-8223
Toll Free: +1 800 327 6299

Email: info@meridianlifescience.com
Orders: orders@meridianlifescience.com
www.MeridianLifeScience.com

meridian BIOSCIENCE ™
LIFE DISCOVERED. LIFE DIAGNOSED.

Connect with us: