



Core Enzymes for the Detection of
SARS-COV-2 and other Viral Pathogens ——

Hifair[®] V nCov Multiplex One Step RT-qPCR enzyme mix

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As the COVID-19 pandemic continues to rage throughout the world, the demand for testing kits steadily increases. The availability of the testing kits, however, is often limited, which greatly impacts the effective control of the pandemic.

Empowered by our innovative enzyme modification technology, large-scale protein fermentation/purification technology, and highly-efficient antibody screening technology, Yeasen has been playing an important role in the battle against coronavirus by providing enzymes for the production of millions of testing kits in China.



Yeast's **Hifair® V nCov Multiplex One-Step RT-qPCR enzyme mix** combines three major enzymes in one tube and allows sensitive quantification of RNA templates, including RNA viruses. Reverse transcription and PCR amplification are carried out in the same tube, simplifying hands-on operations and reducing cross-contamination risks. The enzyme mix is highly resistant to common PCR inhibitors with enzymes engineered to be thermostable and are compatible with the UDG enzyme-based anti-contamination system. We also provide single-enzyme products for major components within the enzyme mix, namely the **Hifair® V Reverse Transcriptionase**, the **UNICON® HotStart Taq DNA Polymerase**, and the **Murine RNase inhibitor**. A ready-to-use reaction buffer is also available, which is optimized for the enzyme mix or the single-enzyme products.

Our UNICON® HotStart Taq DNA Polymerase is an antibody modified enzyme whose activity is blocked at room temperature and will only be restored after the antibodies are denatured and dissociate from the polymerase during the initial denaturation step of the PCR. This technology ensures high specificity and sensitivity of the PCR reactions, effectively reduces false positives and allows room-temperature reaction setup.

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► Hieff Unicon® Hotstart Taq DNA Polymerase exhibits high sensitivity and specificity

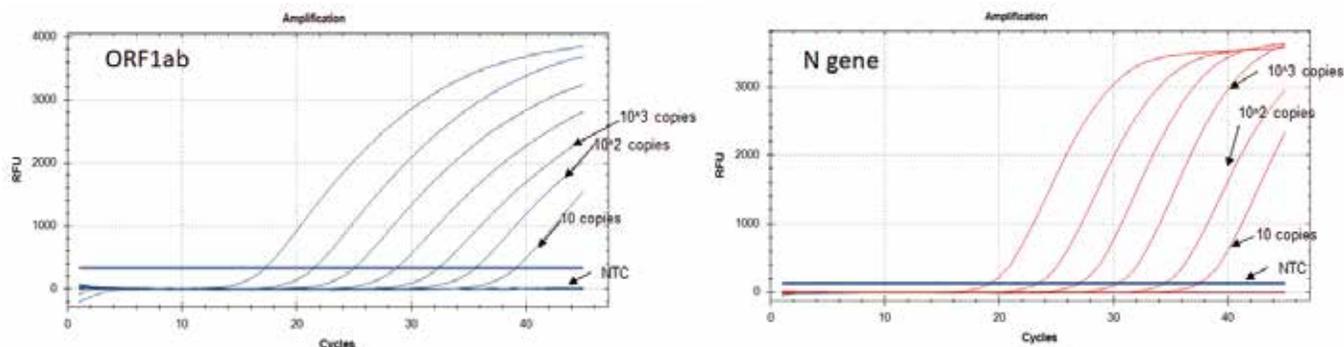
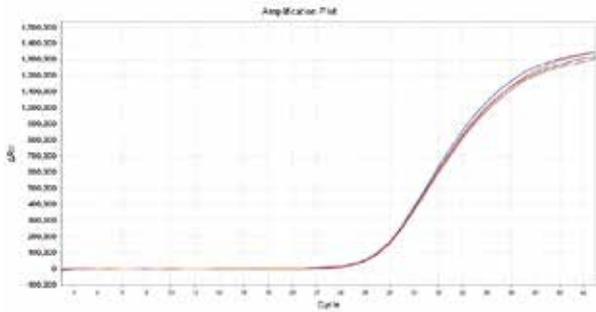


Figure1. Amplification curve of ORF1ab and E gene using Hieff Unicon® Hotstart Taq DNA Polymerase

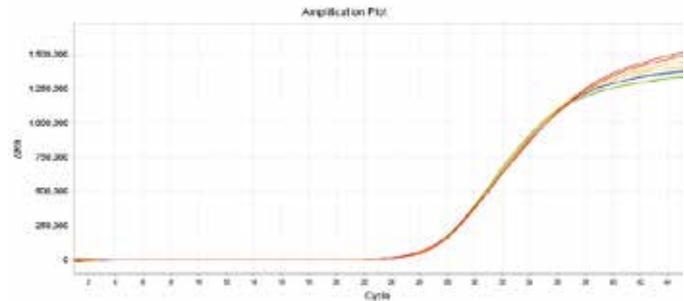
► Hieff Unicon® Hotstart Taq DNA Polymerase exhibit excellent stability



* Figure2. Amplification curve of 10,000 copies of ASF plasmid using Hieff Unicon® Hotstart Taq DNA Polymerase. The blue curve represents the amplification after the reaction was setup and the complete mastermix was stored at 4°C for 10 days, and the red curves represent the amplification after the reaction was setup and the complete mastermix was stored at 4°C for 0 day

*Figure3. Amplification curve of 10,000 copies of ASF plasmid using Hieff Unicon® Hotstart Taq DNA Polymerase.

- Amplification curve after the reaction was setup and the complete mastermix was stored at 37°C for 5 days;
- Amplification curve after the reaction was setup and the complete mastermix was stored at 37°C for 3 days;
- Amplification curve after the reaction was setup and the complete mastermix was stored at 37°C for 1 day;
- Amplification curve after the reaction was setup and the complete mastermix was stored at 37°C for 0 day.



Our featured products related to COVID-19 diagnostics

Applications	Product Name	Catalog No.
DNA direct amplification	Hieff UNICON® HotStart Direct Taq DNA Polymerase	10717ES
DNA amplification	Hieff UNICON® HotStart Taq DNA Polymerase	10729ES
Double-Block anti-Taq antibody	Hieff® Double-Block anti-Taq DNA Polymerase Antibody	31303ES
Anti-Taq antibody	Hieff® anti-Taq DNA Polymerase Antibody	31301ES
Reverse Transcription	Hifair® V Reverse Transcriptase	11300ES
RNase inhibitor	Murine RNase inhibitor	10603ES
UDG/UNG	Uracil DNA Glycosylase (UDG), heat-labile	10303ES
LAMP	Bst II DNA polymerase	12908ES

YEASEN has a production capacity of up to 800L per batch of fermentation, and our daily production of core enzymes for Covid testing kits can enable the diagnostics of 1 million people. All our production processes are performed under stringent quality controls to eliminate batch-to-batch variation. With our adequate inventory, we can continuously provide you the products you need at reasonable prices! Contact us to learn more about our products and to get **free samples** to test out! (Please kindly note that YEASEN will not cover the shipping fees.)



Visit our official website: www.yeasen.com for more information...

OUR MISSION

Contribute to the advancement of life sciences
Be the best enzyme company

OUR VISION

Focus on the industrialization of molecular biology enzymes
Promote the development of the health industry
Benefit people worldwide

Yeasen Biotechnology (Shanghai) Co., Ltd.

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