

KonstaCore™ qRT-PCR Master Mix

Kit Contents

KonstaCore™ qRT-PCR Master Mix	
Cat.No	QRV9-1ML
2x qRT-PCR Master Mix	1ml
Instructions for Use	1ea

Description

KonstaCore™ qRT-PCR Master Mix is an advanced, probe-based one-step qRT-PCR reagent engineered for designed for exceptional storage stability while providing rapid, sensitive, and reproducible detection of RNA targets in a single-tube reaction.

- **Enhanced Storage Stability** : Featuring an improved stabilization system, this master mix helps maintain consistent enzyme activity and robust amplification performance over extended storage periods.

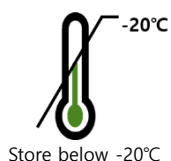
- **Optimized Formulation** : The Master Mix contains reverse transcriptase, antibody-inhibited hot-start Taq polymerase (Ab Taq+ polymerase), RNase inhibitor, dNTPs, Mg^{2+} , optimized buffers, and stabilizing components designed to support efficient and consistent amplification.

- **Reliable Performance** : The optimized buffer and enzyme system delivers consistent sensitivity, specificity, and reproducibility, supporting reliable and robust qRT-PCR performance for RNA target detection.

Application

Quantitative of target RNA sample by real-time RT-PCR

Storage



Shelf life



Quality Control

Each lot of **KonstaCore™ qRT-PCR Master Mix** was tested against predetermined specifications to ensure consistent product quality.

Protocol

1. Reaction Mixture

(1) Add following components for a 20ul volume reaction.

Components	Volumes
Template RNA	1 ~ 5μl
2x qRT-PCR Master Mix	10μl
Forward primer (10μM)	0.5 ~ 1.0μl
Reverse primer (10μM)	0.5 ~ 1.0μl
Probe (10μM)	0.5 ~ 1.0μl
ROX Dye (not supplied)	Optional
RNase-free Water	Adjust to final 20μl

- 1) ROX passive reference dye is not supplied in this kit. The use of ROX Dye should follow the instrument's recommendation.
- (2) Gently mix and briefly centrifuge the reaction mix.
- (3) Perform the real-time PCR.

2. PCR Condition

Program a real-time PCR instrument according to the recommendations below.

Step	Condition		Cycle(s)
[Optional] UDG reaction*		20°C ~ 25°C for 5min*	1
cDNA Synthesis		50°C for 10~40 min	1
Enzyme Activation		95°C for 2 ~ 5 min	1
PCR Amplification	Denaturation	95°C for 1 ~ 10 sec**	40
	Annealing & extension	55 ~ 60°C for 1 ~ 30 sec** Collect the fluorescence data	

* The UDG reaction step is not essential because UDG can efficiently remove the carryover contamination DNA during the preparation of the RT-PCR mixture and cyclor ramping.

** The reaction conditions could be modified and optimized to the system used.

Products

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