

RealHelix™ qRT-PCR Lyo-Cake [Probe]

Kit Contents

RealHelix™ qRT-PCR Lyo-Cake [Probe]		
Cat. No.	LDFQR-C96 (96rxns)	LDFQR-C480 (480rxns)
qRT-PCR Lyo-Cake [Probe]	8-strip x 12ea	8-strip x 60ea
RNase-free Water	1.0ml x 2ea	1.0ml x 10ea
8-Cap Strip	12ea	60ea
Instructions for Use	1ea	1ea

Description

RealHelix™ qRT-PCR Lyo-Cake [Probe], a lyophilized qRT-PCR reagent, provides a probe-based rapid qRT-PCR amplification of RNA targets. Through the lyophilization method, moisture is removed from the product to facilitate the storage or transportation of products at room temperature. The Lyophilized qRT-PCR premix can be rehydrated simply by adding RNase-free Water along with primers and templates.

RealHelix™ qRT-PCR Lyo-Cake [Probe], contains antibody-inhibited hot-start Taq DNA polymerase, reverse transcriptase, RNase inhibitor, dNTPs, Mg²⁺, salts, and stabilizing agents. This kit provides specific amplification of target RNA with minimizing non-specific reactions and generations of dimer between primers.

Application

Quantitative real-time RT-PCR

Storage

- Store at room temperature for a maximum of 6 months.
- For extended storage, maintain the product at or below 4°C for up to 12 months.
- Please protect it from direct light exposure.
- After opening the pouch, we suggest promptly resealing it and storing it in a freezer until the next use.

Quality control

Each lot of **RealHelix™ qRT-PCR Lyo-Cake [Probe]** was tested against predetermined specifications to ensure consistent product quality.

Protocol

1. Reaction Mixture

- (1) Remove the seal of the lyophilized cake tube.
- (2) Add the reaction components to the lyophilized qRT-PCR cake tube as in the following table.

Components	Volumes
RNA Template	1 ~ 5µl
Forward primer (10µM)	0.5 ~ 1.0µl
Reverse primer (10µM)	0.5 ~ 1.0µl
Probe (10µM)	0.5 ~ 1.0µl
ROX Dye ¹⁾	Optional
RNase-free Water	Adjust to final 20µl

- ¹⁾ Use the recommended amount of ROX Dye (Passive Reference) depending on the instrument. ROX Dye (Passive Reference) is not included in this kit.

- (3) Seal the tube with a cap strip. Gently tap the reaction mix and centrifuge briefly.
- (4) Perform the real-time PCR.

2. PCR Condition

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

Step	Condition	Cycle(s)
cDNA Synthesis	50°C for 10~40 min	1
Enzyme Activation	95°C for 2 ~ 5 min	1
PCR Amplification	Denaturation 95°C for 5 ~ 10 sec*	45
	Annealing & extension 55 ~ 60°C for 10 ~ 30 sec* Collect the fluorescence data	

* The reaction time for each step should be optimized on the applied thermocycler.

Products

	Products	Cat. No.	Size
Cake type	RealHelix™ qPCR Lyo-Cake [Probe]	LDFQP-C96	96rxns
		LDFQP-C480	480rxns
	RealHelix™ qPCR Lyo-Cake [Probe] [UDG System]	LDFQPU-C96	96rxns
		LDFQPU-C480	480rxns
	RealHelix™ qRT-PCR Lyo-Cake [Probe]	LDFQR-C96	96rxns
		LDFQR-C480	480rxns
	RealHelix™ qRT-PCR Lyo-Cake [Probe] [UDG System]	LDFQRU-C96	96rxns
		LDFQRU-C480	480rxns
Bead type	RealHelix™ qPCR Lyo-Dot [Probe]	LDFQP-B96	96rxns
	RealHelix™ qPCR Lyo-Dot [Probe] [UDG System]	LDFQPU-B96	96rxns
	RealHelix™ qRT-PCR Lyo-Dot [Probe]	LDFQR-B96	96rxns
	RealHelix™ qRT-PCR Lyo-Dot [Probe] [UDG System]	LDFQRU-B96	96rxns