

## RealHelix™ qPCR Lyo-Cake [Probe] [UDG System]

### Kit Contents

RealHelix™ qPCR Lyo-Cake [Probe] [UDG System]		
Cat. No.	LDFQPU-C96 (96rxns)	LDFQPU-C480 (480rxns)
qPCR Lyo-Cake [Probe] [UDG]	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™ qPCR Lyo-Cake [Probe] [UDG System]**, a lyophilized qPCR reagent, provides a probe-based rapid qPCR amplification of DNA targets. Through the lyophilization method, moisture is removed from the product to facilitate the storage or transportation of products at room temperature. The Lyophilized qPCR premix can be rehydrated simply by adding RNase-free Water along with primers and templates.

RealHelix™ qPCR Lyo-Cake [Probe] [UDG System], contains antibody-inhibited hot-start Taq DNA polymerase, heat-labile Uracil-DNA glycosylase(HL-UDG), dNTPs, Mg<sup>2+</sup>, salts, and stabilizing agents. The applied HL-UDG/dUTP system eliminates the carryover contamination of PCR products from previous reactions.

### Application

Quantitative real-time 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™ qPCR Lyo-Cake [Probe][UDG System]** 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 qPCR cake tube as in the following table.

Components	Volumes
DNA 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 <sup>1)</sup>	Optional
RNase-free Water	Adjust to final 20µl

- <sup>1)</sup> 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)
[Optional] UDG reaction*	20°C ~ 25°C for 5min*	1
Enzyme Activation	95°C for 2 ~ 5 min	1
PCR Amplification	Denaturation 95°C for 5 ~ 15 sec**	45
	Annealing & extension <b>55 ~ 60°C for 10 ~ 30 sec**</b> <b>Collect the fluorescence data</b>	

\* The UDG reaction step is not essential. The UDG will efficiently remove carryover contaminant DNA during the reaction mix setup and cyclers ramping.

\*\* 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	