SuPrimeScript qRT-PCR Premix with UDG

(2X, Real-time PCR for TaqMan Probe)

Product Name	Cat. No.	Size
SuPrimeScript qRT-PCR Premix with UDG (2X)	UQ-6000	1.0 ml X 1
	UQ-6001	1.0 ml X 3
	UQ-6002	1.0 ml X 5
SuPrimeScript qRT-PCR Premix with UDG (2X, ROX dye)	UQ-6100	1.0 ml X 1
	UQ-6101	1.0 ml X 3
	UQ-6102	1.0 ml X 5

Package information

UQ-6000	2X SuPrimeScript qRT-PCR Premix with UDG (1.0 ml X 1) - with SuPrimeScript RTase, HS Prime Taq DNA Polymerase, RNase Inhibitor, UDG (Heat-labile Uracil DNA Glycosylase), reaction Buffer, enzyme stabilizer, dNTPs mixture and PCR enhancer
UQ-6100	2X SuPrimeScript qRT-PCR Premix with UDG (1.0 ml X 1) - with SuPrimeScript RTase, HS Prime Taq DNA Polymerase, RNase Inhibitor, UDG (Heat-labile Uracil DNA Glycosylase), reaction Buffer, enzyme stabilizer, dNTPs mixture and PCR enhancer 50X ROX dye (25 μM, 50㎕ X 1)

Description

SuPrimeScript qRT-PCR Premix with UDG (for Probe Real-time PCR) provides a complete system for fast, high-yield and reliable single-tube one-step qRT-PCR.

The SuPrimeScript qRT-PCR Premix with UDG contains uracil-DNA glycosylase (UDG), dATP, dCTP, dGTP, dTTP and dUTP. UDG can efficiently remove uracil from single-stranded or double-stranded DNA.

Also, SuPrimeScript qRT-PCR Premix with UDG (for Probe Real-time PCR) can be protected carryover contamination from DNA template.

Usage Information

▣ The reaction temperature for UDG activation is **37℃**.
▣ The reaction time for UDG activation is **3 min**.
▣ The reaction temperature for cDNA synthesis is **50℃**.
▣ The reaction time for cDNA synthesis is **20 min**.

◉ Research Use Only
◉ Store at -20℃

Protocol

The following 20㎕ or 50㎕ reaction volume can be used for one-step qRT-PCR.

1. Program the real-time PCR instrument.

2. Prepare the reaction mixture

Components		Volume	
RNase-free water		add up to 20㎕	add up to 50㎕
Upstream Primer (10 pmoles/㎕, 10 μM)		x㎕	x㎕
Downstream Primer (10 pmoles/㎕, 10 μM)		x㎕	x㎕
TaqMan probe (10 pmoles/㎕, 10 μM)		x㎕	x㎕
[50X ROX dye **(Option)**]♣		[x㎕]	[x㎕]
RNA	- total RNA (1 ng ~ 500 ng) - mRNA (0.1 ng ~ 50 ng)	x㎕	x㎕
2X SuPrimeScript qRT-PCR Premix with UDG		10㎕	25㎕

♣ 50X ROX dye

ROX dye can be included in the reaction to normalize the fluorescent reporter signal, for instruments that are compatible with that option. ROX is supplied at a 25 μM concentration. Use the following table to determine the amount of ROX to use with a particular instrument (per 50㎕ reaction volume).

Instrument	Amount of ROX per 50㎕ reaction	Final ROX Concentration
AB 7000, 7300, 7700, 7900HT, 7900HT Fast, StepOne, and StepOnePlus	1.0㎕ (1X)	500 nM
AB 7500 Stratagene Mx3000P, Mx3005P, and Mx4000	0.1㎕★ (0.1X)	50 nM

★ To accurately pipet 0.1㎕ per reaction, we recommend diluting ROX 1:10 immediately before use and use 1㎕ of the dilution.

3. PCR cycling

Step	Temp. & Time		Cycles
	Temp.	Time	
UDG activation	**37℃**	**3 min**	1
cDNA synthesis	**50℃**	**20 min**	1
Initial denaturation	**95℃**	**1 min**	1
Amplification	95℃ 60℃	5 sec 30~45 sec	30 ~ 45