

Prime Q-Mastermix with UDG

(2X, Real-time PCR with SYBR Green I)

Product Name	Cat. No.	Size
Prime Q-Mastermix with UDG (2X)	UQ-9200	1.0 ml X 1
Prime Q-Mastermix with UDG (2X, with ROX dye)	UQ-9210	1.0 ml X 1

Package information

UQ-9200	2X Prime Q-Mastermix with UDG (1.0 ml X 1) - with HS Prime Taq DNA Polymerase, UDG (Uracil DNA Glycosylase), reaction buffer, enzyme stabilizer, dNTPs mixture, SYBR Green I and PCR enhancer
UQ-9210	2X Prime Q-Mastermix with UDG (1.0 ml X 1) - with HS Prime Taq DNA Polymerase, UDG (Uracil DNA Glycosylase), reaction buffer, enzyme stabilizer, dNTPs mixture, SYBR Green I and PCR enhancer 50X ROX dye (25 µM, 50 µl X 1)

Description

The Prime Q-Mastermix 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.

Prime Q-Mastermix with UDG (Real-time PCR with SYBR Green I) is a 2X premix reagent for real-time PCR by using SYBR Green I dye. This product contains the HS Prime Taq DNA Polymerase, which is an enzyme for hot-start PCR.

Also, Prime Q-Mastermix with UDG (Real-time PCR with SYBR Green I) provide as PCR Premix that may be used with any appropriately designed primer to detect any DNA or cDNA sequence.

Usage Information

- A target template is a DNA, cDNA and all nucleotide sequence.
- Consistent results are obtained for amplicon size ranges less than 500 bp.

● **Research Use Only**

● **Store at -20°C**

Protocol

The following 50 µl reaction volume can be used for detection using SYBR Green I real-time PCR.

1. Program the real-time PCR instrument.

2. Prepare the reaction mixture

Components	Volume
DNase - free water	add up to 50 µl
Upstream Primer (10 pmole, 10 µM)	x µl
Downstream Primer (10 pmole, 10 µM)	x µl
[50X ROX dye (Option)]*	[x µl]
Template DNA	x µl
Prime Q-Mastermix with UDG (2X)	25 µl

♣ 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 µl reaction volume).

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

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

3. PCR cycling

Step	Temp. & Time		Cycles
	Temp.	Time	
UDG activation	50°C	3 min	1
Initial denaturation	95°C	3~5 min	1
Denaturation	95°C	30~60 sec	30 ~ 45
Annealing	50~60°C	30~60 sec	
Extension	72°C	30~60 sec	