

# PerfectStart™ II Probe qPCR SuperMix UDG

Cat. No. AQ712

Storage: at -20°C for two years

## Description

PerfectStart™ II Probe qPCR SuperMix is a ready-to-use qPCR cocktail containing all components, except probe, primer and template. It contains PerfectStart™ Taq DNA Polymerase (PerfectStart™ Taq DNA polymerase is a hot-start Taq DNA polymerase containing Taq DNA polymerase and three kinds of monoclonal antibodies, effectively blocking DNA polymerase activity and preventing non-specific amplification at low temperature), specially optimized dual-cation buffer, dNTPs, PCR enhancer and stabilizer. qPCR SuperMix is provided at 2×concentration and can be used at 1×concentration by adding template, primer, probe, passive reference dye (optional) and Nuclease-free Water. dUTP/UDG is included in the kit to degrade dU-containing ssDNA and dsDNA, which can prevent cross contamination.

## Highlights

- PerfectStart™ Taq DNA Polymerase, hot start with three antibodies blocking technique, improves sensitivity, enhances specificity and generates more accurate data.
- Specially optimized qPCR reaction buffer provides higher sensitivity and specificity.
- dUTP/UDG used to avoid cross contamination.
- Passive reference dyes are provided for different qPCR instruments.

## Passive Reference Dye

- Passive Reference Dye I (50×)  
ABI Prism 7000/7300/7700/7900, ABI Step One, ABI Step One Plus, ABI 7900HT, ABI 7900 HT Fast
- Passive Reference Dye II (50×)  
ABI Prism 7500, ABI Prism 7500 Fast, ABI QuantStudio Dx/3/5, ABI QuantStudio 6/7/12K Flex, ABI ViiA 7, Stratagene Mx3000/Mx3005P/Mx4000
- No Passive Reference Dye  
Roche LightCycler 480, Roche Light Cyclers 96, MJ Research Chromo4, MJ Research Opticon 2, Takara TP-800, Bio-Rad iCycler iQ, Bio-Rad iCycler iQ5, Bio-Rad CFX96, Bio-Rad C1000 Thermal Cycler, Thermo Scientific PikoReal 96, Qiagen Corbett Rotor-Gene 6000, Qiagen Corbett Rotor-Gene G, Qiagen Corbett Rotor-Gene Q, Qiagen Corbett Rotor-Gene 3000, Mastercycler ep realplex

## Kit Contents

Component	AQ712-01	AQ712-02	AQ712-03
2×PerfectStart™ II Probe qPCR SuperMix UDG	1 ml	5×1 ml	15×1 ml
Passive Reference Dye (50×)	40 µl	200 µl	600 µl
Nuclease-free Water	1 ml	5 ml	3×5 ml



#### Reaction Components (20 $\mu$ l)

Component	Volume	Final Concentration
Template	1 pg-1 $\mu$ g	as required
Forward Primer (10 $\mu$ M)	0.4 $\mu$ l	0.2 $\mu$ M
Reverse Primer (10 $\mu$ M)	0.4 $\mu$ l	0.2 $\mu$ M
Probe (10 $\mu$ M)	0.4 $\mu$ l	0.2 $\mu$ M
2 $\times$ PerfectStart <sup>TM</sup> II Probe qPCR SuperMix UDG	10 $\mu$ l	1 $\times$
Passive Reference Dye (50 $\times$ ) (optional)	0.4 $\mu$ l	1 $\times$
Nuclease-free Water	Variable	-
Total volume	20 $\mu$ l	-

#### Thermal cycling conditions (two-step)

94°C 30 sec

94°C 5 sec

60°C 30 sec\* } 40-45 cycles

For ABI qPCR instrument, we suggest using the following read time:

- \* For ABI Prism 7700/7900, set the read time to 30 seconds.
- \* For ABI Prism 7000/7300, set the read time to 31 seconds.
- \* For ABI Prism 7500, set the read time to 34 seconds.
- \* For ABI ViiA 7, set the read time at least to 19 seconds.

#### Note

- Completely thaw the contents in the tube and mix well before each use.
- It is suggested to perform reaction setup on ice, which may lead to optimum amplification efficiency.

**For research use only, not for clinical diagnosis.**

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