

## PerfectStart™ II Probe qPCR SuperMix UDG

**Cat. No.** AQ712

**Storage:** at -18°C or below 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 Cycler 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 µl)

Component	Volume	Final Concentration
Template	1 pg-1 µg	as required
Forward Primer (10 µM)	0.4 µl	0.2 µM
Reverse Primer (10 µM)	0.4 µl	0.2 µM
Probe (10 µM)	0.4 µl	0.2 µM
2× <i>PerfectStart</i> <sup>TM</sup> II Probe qPCR SuperMix UDG	10 µl	1×
Passive Reference Dye (50×) (optional)	0.4 µl	1×
Nuclease-free Water	Variable	-
Total volume	20 µl	-

### Thermal cycling conditions (two-step)

94°C 5 min

94°C 5 sec

60°C 30 sec\* } 40-45 cycles

Note: The UDG in AQ712 is highly efficient and works at room temperature during reaction setup—no extra incubation time is needed. If reactions are prepared on ice, add a “37°C for 2 minutes” step to activate the UDG.

### 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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