

PerfectStart™ II Probe qPCR SuperMix

Please read the manual carefully before use

Cat. No. AQ711

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 (hot start with three antibodies blocking technique, effectively blocking DNA polymerase activity and preventing non-specific amplification at low temperature), a specially optimized qPCR reaction 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.

Highlights

- Blocking by 3 antibodies, enabling high specificity, high sensitivity, high amplification efficiency, and a wide range of species.
- Specially optimized qPCR reaction buffer provides higher sensitivity and specificity.
- Passive reference dyes are provided for different qPCR instruments to correct differences in fluorescence detection between wells due to pipetting errors.

Kit Contents

Component	AQ711-01	AQ711-02	AQ711-03
2×PerfectStart™ II Probe qPCR SuperMix	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

Recommended qPCR System and Conditions (taking 20 µl reaction system as an example)

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×PerfectStart™ II Probe qPCR SuperMix	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 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, the time to 30 seconds.

* For ABI Prism 7000/7300, the time to 31 seconds.

* For ABI Prism 7500, the time to 34 seconds.

* For ABI ViiA 7, the time is at least 19 seconds.



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

Notes

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

For research use only, not for clinical diagnosis.

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