PerfectStart® Green qPCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AQ601

Version No. Version 2.0

Storage at -20°C in the dark for two years

Description

The kit contains a *PerfectStart*™ Taq DNA Polymerase, optimized dual-cation buffer, SYBR Green I, dNTPs, PCR enhancer and PCR stabilizer. Three monoclonal antibodies bind to the hot-start Taq DNA Polymerase, effectively blocking DNA polymerase activity and inhibiting non-specific amplification at low temperature. qPCR SuperMix is provided at 2×concentration and can be used at 1×concentration by adding template, primers, Universal Passive Reference Dye and nuclease-free water.

Highlights

- Blocking by 3 antibodies; high specificity, sensitivity and amplification efficiency; applicable to a wide range of species.
- Dual-cation buffer enhances specificity and reduces primer-dimer formation.
- Universal Passive Reference Dye for different instruments to correct differences in fluorescence detection between wells due to pipetting errors.

Kit Contents

Component	AQ601-01-V2	AQ601-02-V2	AQ601-03-V2	AQ601-04-V2
2×*PerfectStart*® Green qPCR SuperMix	1 ml	5×1 ml	15×1 ml	25×1 ml
Universal Passive Reference Dye(50×)	40 µl	200 µl	600 µl	1 ml
Nuclease-free Water	1 ml	5 ml	3×5 ml	5×5 ml

Reaction Components (20 µl)

Component	Volume	Final Concentration
Template	Variable	as required
Forward Primer (10 µM)	0.4 µl	0.2 µM
Reverse Primer (10 µM)	0.4 µl	0.2 µM
2×*PerfectStart*® Green qPCR SuperMix	10 µl	1×
Universal Passive Reference Dye (50×) (optional)	0.4 µl	1×
Nuclease-free Water	Variable	-
Total volume	20 µl	-

(For genomic DNA, we suggest using 10 pg-1 µg template, while for plasmid DNA, we suggest using 10-10^7 copies.)

qPCR (three-step method)

94°C	30 sec	
94°C	5 sec	40-45 cycles
50-60°C	15 sec★	
72°C	10 sec★	

Dissociation Stage

qPCR (two-step method)

94°C	30 sec	
94°C	5 sec	40-45 cycles
60°C	30 sec★	

Dissociation Stage

Fluorescent signals can be collected during the annealing or extension stage in the three-step method. For ABI instruments, 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 19 seconds.

Two-step qPCR is more suitable for higher specificity assay.

Three-step qPCR is more suitable for higher amplification efficiency assay.

Universal Passive Reference Dye is available for instruments

• Universal Passive Reference Dye

ABI Prism 7000/7300/7700/7900, ABI Step One, ABI Step One Plus, ABI 7900HT, ABI 7900HT Fast； ABI Prism 7500, ABI Prism 7500 Fast, ABI QuantStudio Dx/3/5, ABI QuantStudio 6/7/12K Flex, ABI ViiA 7, Stratagene Mx3000P/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.

For research use only, not for clinical diagnosis.

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