

PerfectStart® Fast Green qPCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AQ611

Storage at -20°C in dark for two years

Description

PerfectStart® Fast Green qPCR SuperMix is a ready-to-use qPCR cocktail. It contains a PerfectStart® Fast Taq DNA Polymerase, optimized dual-cation buffer, SYBR Green I, dNTPs, PCR enhancer and PCR stabilizer. Three monoclonal antibodies bind to the FastTaq DNA Polymerase engineered by directed evolution with high affinity, which are prepared by optimized process, 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, passive reference dye (optional) and nuclease-free water.

Highlights

- PerfectStart® Fast Taq DNA Polymerase is fast and efficient, enables high specificity, high sensitivity, high amplification efficiency.
- Dual-cation buffer enhances specificity and reduces primer-dimer formation.
- Passive reference dyes (to normalize tube-to-tube differences due to pipetting errors) are provided for different qPCR instruments.

Kit Contents

Component	AQ611-01	AQ611-02	AQ611-03	AQ611-04
2×PerfectStart® Fast Green qPCR SuperMix	1 ml	5×1 ml	15×1 ml	25×1 ml
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® Fast Green qPCR SuperMix	10 µl	1×
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 10-10⁷ copies.

Thermal cycling conditons (two-step)

95°C	1 min	} 40-45 cycles
65°C	5 sec	
60°C	15 sec★	

Dissociation Stage

★Please choose an instrument that supports 15-second extension and read time, such as: Bio-Rad CFX96, Roche Light Cycler 96, ABI Step One, Bioer FQD-96A, MOLARRAY MA-6000, etc.;

★If the qPCR instrument does not support 15-second extension and read time, please set it to the shortest time supported by the instrument, such as: ABI Prism 7500, please set the time to 34 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 7900HT 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 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

