

# PerfectStart® Fast Green qPCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AQ611

Cat. No. Version 1.1

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 Hot-Start 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, blocking by 3 antibodies, enables high specificity, high sensitivity, high amplification efficiency, and a wide range of applicable species..
- 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

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

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 10-10<sup>7</sup> copies.

## Thermal cycling conditions (two-step)

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

Dissociation Stage



#### 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, not for clinical diagnosis.**

Version number: V1.1-202202

Service telephone +86-10-57815020

Service email [complaints@transgen.com](mailto:complaints@transgen.com)

