PerfectStart® Universal Green qPCR SuperMix

Please read the manual carefully before use.

Cat. No. AQ631

Version No. Version 1.0

Storage: at -18℃ or below in the dark for two years.

Description

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

Features

- Blocking by 3 antibodies, enabling high specificity, high sensitivity, high amplification efficiency, and a wide range of species.
- Dual-cation buffer enhances specificity and reduces primer-dimer formation.
- This product is premixed with Universal Passive Reference Dye to correct differences in fluorescence detection between wells, without the addition of Passive Reference Dye.
- High fluorescence intensity and graceful amplification curve.

Kit Contents

Component	AQ631-01	AQ631-02	AQ631-03	AQ631-04
2×*PerfectStart*® Universal Green qPCR SuperMix	1 ml	5×1 ml	15×1 ml	25×1 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*® Universal Green qPCR SuperMix	10 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.)

qPCR (three-step method)

95℃	1 min	
95℃	5 sec	40 cycles
50-60℃	15 sec★	
72℃	10 sec★	
Dissociation Stage		

qPCR (two-step method)

95℃	1 min	
95℃	5 sec	40 cycles
60℃	30 sec★	
Dissociation Stage		

★ Fluorescence signal acquisition for SYBR GREEN channel. Fluorescent signals can be collected at the annealing or extension step in the three-step method.

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

Passive Reference Dye is compatible with systems listed below:

• 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

Notes

Completely thaw the contents in the tube and mix well before each use.

For research use only, not for clinical diagnosis

Version number: V1-202410

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