

TransStart® Tip Green qPCR SuperMix (+Dye I/ +Dye II)

Cat. No. AQ142

Storage: at -20°C away from light for two years

Description

This product is a ready-to-use qPCR cocktail. It contains a novel *TransStart® TipTaq* DNA Polymerase, unique hot start reagents (DNA binding proteins combined with unique chemical), optimized double cation buffer, EvaGreen I, dNTPs, PCR Enhancer, PCR stabilizer and Passive Reference Dye I/II. qPCR SuperMix is provided at 2×concentration and can be used at 1× concentration by adding template, primer and Nuclease-free Water.

Highlights

- A combination of chemical blocking technique with *TransStart®* hot start technique to achieve complete blocking. Compared with double blocking *TransStart® TopTaq*, this method provides higher sensitivity, higher specificity, better amplification.
- Double cation (K^+ , NH_4^+) buffer enhances specificity and reduces primer-dimer formation.

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

Kit Contents

Component	AQ142-11/21	AQ142-12/22	AQ142-13/23	AQ142-14/24
2× <i>TransStart®</i> Tip Green qPCR SuperMix (+Dye I/+Dye II)	1 ml	5×1 ml	15×1 ml	25×1 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× <i>TransStart®</i> Tip Green qPCR SuperMix (+Dye I/ +Dye II)	10 µl	1×
Nuclease-free Water	Variable	-
Total Volume	20 µl	-

For genomic DNA, we suggest using 10 pg-1 µg template; for plasmid DNA, we suggest using 10-10⁷ copies.



Thermal cycling conditions (three-step)

94°C 30 sec

94°C 5 sec

50-60°C 15 sec*

72°C 10 sec*

40-45 cycles

Dissociation Stage

Thermal cycling conditions (two-step)

94°C 30 sec

94°C 5 sec

60°C 30 sec*

40-45 cycles

Dissociation Stage

Fluorescent signals can be collected during the annealing or extension stage. For ABI qPCR instrument, we suggest using the following signal collecting 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.

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

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

Note

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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