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×*TransStart*® 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×*TransStart*® 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 10-10^7 copies.

Thermal cycling conditions (three-step)

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