TransStart® Tip Green qPCR SuperMix

Cat. No. AQ141
Storage: at -20°C in dark for two years

Description

TransStart® Tip Green qPCR SuperMix 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 Enhancerm and PCR stabilizer. qPCR SuperMix is provided at 2× concentration and can be used at 1× concentration by adding template, primer, passive reference dye (optional) 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 dyes are provided for different qPCR instruments.

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

Kit Contents

Component	AQ141-01	AQ141-02	AQ141-03	AQ141-04
2×*TransStart*® Tip 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×*TransStart*® Tip 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 1 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 sensitivity assay.

Note

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

FOR RESEARCH USE ONLY