

TransStart® Top Green qPCR SuperMix

Cat. No. AQ131

Storage: at -20°C in dark for two years

Description

TransStart® Top Green qPCR SuperMix is a ready-to-use qPCR cocktail containing all components, except primer and template. It contains TransStart® TopTaq DNA Polymerase, SYBR Green I, dNTPs, PCR enhancer and 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

- TransStart® TopTaq DNA Polymerase, hot start with double blocking technique, improves sensitivity, enhances specificity and generates more accurate data.
- 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	AQ131-01	AQ131-02	AQ131-03	AQ131-04
2×TransStart® Top 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® Top 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 10-10⁷ 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 sensitivity assay.

Note

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

FOR RESEARCH USE ONLY