TransStart® Green qPCR SuperMix UDG

Cat. No. AQ111
Storage: at -20°C in dark for two years

Description

TransStart® Green qPCR SuperMix UDG is a ready-to-use qPCR cocktail containing all components, except primer and template. It contains *TransStart*® *Taq* DNA Polymerase, UDG, 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*® *Taq* 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.
- UDG and dUTP avoid cross contamination.

Passive Reference Dye

- Passive Reference Dye I (50×)
  ABI Prism® 7000/7300/7700/7900, ABI Step One®, ABI Step One Plus®
- Passive Reference Dye II (50×)
  ABI Prism® 7500, ABI Prism® 7500 Fast, ABI Q6, ABI QuantStudio® 6/7 Flex, ABI ViiA® 7, Stratagene Mx3000® /Mx3005P®, Qiagen Corbett Rotor-Gene® 3000
- 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

Kit Contents

Component	AQ111-01	AQ111-02	AQ111-03
TransStart® Green qPCR SuperMix UDG (2×)	1 ml	5×1 ml	15×1 ml
Passive Reference Dye (50×)	40 µl	200 µl	600 µl
Nuclease-free Water	1 ml	5 ml	3×5 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*® Green qPCR SuperMix UDG	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)

50°C 2 min (UDG Incubation)
94°C 10 min (UDG Inactivation)
94°C 5 sec
50-60°C 15 sec* } 40-45 cycles
72°C 10 sec*
Dissociation Stage

Thermal cycling conditions (two-step)

50°C 2 min (UDG Incubation)
94°C 10 min (UDG Inactivation)
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.