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

Cat. No. AQ132
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, 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

- *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 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	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 (+Dye I/+Dye II)	10 μl	1×
Nuclease-free Water	Variable	-
Total Volume	20 μl	-

Reaction Components (20 μl)

Component	**AQ132-11/21**	**AQ132-12/22**	**AQ132-13/23**	**AQ132-14/24**
2×*TransStart*® Top 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

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	40-45 cycles
50-60°C	15 sec*	
72°C	10 sec*	

Dissociation Stage

Thermal cycling conditions (two-step)

94°C	30 sec	
94°C	5 sec	40-45 cycles
60°C	30 sec*	

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.

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