TransScript® Probe One-Step qRT-PCR SuperMix

Cat. No. AQ221
Storage: at -20°C for two years

Description

TransScript® Probe One-Step qRT-PCR SuperMix is designed for one-step qRT-PCR with high sensitivity, high synthesis efficiency and high amplification efficiency. This kit firstly synthesizes first-strand cDNA with RNA as templates using reverse gene-specific primers, and then performs qPCR with the synthesized cDNA as templates using both forward and reverse gene-specific primers and fluorescent probes to achieve one step from reverse transcription to qPCR in a single tube.

Highlights

- Simple to use with reduced contamination
- High sensitivity and high specificity

Applications

- High-copy and low-copy gene detection
- Detection of RNA virus or trace amounts of RNA

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 Light Cycler 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	AQ221-01	AQ221-02
TransScript® Probe One-Step RT/RI Enzyme Mix	40 µl	160 µl
2×*PerfectStart*™ Probe One-step qPCR SuperMix	1 ml	4×1 ml
Passive Reference Dye (50×)	40 µl	160 µl
RNase-free Water	1 ml	4×1 ml

Reaction Components (20 µl)

Component	Volume	Final Concentration
RNA Template	1 pg-100 ng	as required
Forward GSP (10 µM)	0.4 µl	0.2 µM
Reverse GSP (10 µM)	0.4 µl	0.2 µM
Probe (1 µM)	1 µl	0.05 µM
2×*PerfectStart*™ Probe One-step qPCR SuperMix	10 µl	1×
TransScript® Probe One-Step RT/RI Enzyme Mix	0.4 µl	-
Passive Reference Dye (50×) (optional)	0.4 µl	1×
RNase-free Water	Variable	-
Total volume	20 µl	-

Thermal cycling conditions (two-step)

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

For ABI qPCR instrument, we suggest using the following read time:

* For ABI Prism 7700/7900, set the read time to 30 seconds.
* For ABI Prism 7000/7300, set the read time to 31 seconds.
* For ABI Prism 7500, set the read time to 34 seconds.
* For ABI ViiA 7, set the read time to 19 seconds at least.

Notes

- Avoid RNase contamination.
- Use high-quality, intact RNA templates to ensure the success of qRT-PCR.
- Only gene-specific primers are compatible with this kit. Oligo(dT) or random primers cannot be used.
- The working concentration of the probe will affect Ct value. Please determine the optimum amounts of probes based on experimental results.

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