

2xGUEasy Hot Start Taq U+ probe qPCR Master Mix manual

i. Product Description

This product is a 2xMix premixed reagent, a special reagent for qPCR by probe method, which can realize multiple fluorescent quantitative PCR reactions in a single reaction well. This product contains hot-start Taq enzyme (antibody modification), which greatly improves the sensitivity and specificity of amplification. This product introduces UDG/dUTP anti-pollution system, which can work at room temperature to ensure true and reliable results. This product has deeply optimized the multiple reaction buffer system, which can improve the amplification efficiency of the reaction, promote the effective amplification of low-concentration templates, and can perform high-sensitivity Real Time PCR reactions.

ii. Advantages

Anti-pollution: introduce UDG/dUTP anti-pollution system to ensure the authenticity and reliability of the results

Fast: Use a two-step procedure to quickly and accurately detect or quantify genes of interest.

Sensitive: It can effectively detect low copy number templates.

Repeatability: The optimized reaction system ensures high repeatability between experiments.

iii. Reaction System

Components	Volume (ul)	Final Conc.
2xGUEasy Hot Start Taq U+ probe qPCR Master Mix	10	1x
Primer Mix (10uM)	N	0.1-0.5uM
Probe Mix (10uM)	N	50-250nM
Template	1-5	-
ddH ₂ O	up to 20ul	-

iv. Reference procedure

Cycle steps	Temperature	Time	Number of cycles
Digestion	37°C	2min	1
Initial denaturation	95°C	1-2min	1
Denaturation	95°C	5-15s	40
Extension and Fluorescence Acquisition	60°C	30s	

v. Storage condition

Shipped in ice-pack, stored at -20°C, valid for two years.

vi. Product Specification

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Product	Catalog #	Size
2xGUEasy Hot Start Taq U+ probe qPCR Master Mix	KQMU3001-1	1mL
2xGUEasy Hot Start Taq U+ probe qPCR Master Mix	KQMU3001-3	1mLx3
2xGUEasy Hot Start Taq U+ probe qPCR Master Mix	KQMU3001-5	1mLx5

vii. Notes

- 1) Be sure to mix well before use to avoid excessive air bubbles from violent shaking.
- 2) Primer concentration: Primer Mix contains multiple pairs of primers, usually the final concentration of each primer is 0.2 μ M, and can also be adjusted between 0.1-0.5 μ M according to the situation;
- 3) Probe concentration: Probe Mix contains multiple probes with different fluorescent signals, and the concentration of each probe can be adjusted between 50-250 nM according to specific conditions;
- 4) This product does not contain Rox reference dye. Rox reference dye: Used in Real Time PCR amplification instruments such as Applied Biosystems to correct the fluorescence signal error between wells;
- 5) Template dilution: qPCR is extremely sensitive, and it is recommended to dilute the template for use. If the template is a cDNA stock solution, the volume of the template should not exceed 1/10 of the total volume;
- 6) Reaction system: 20 μ L or 50 μ L is recommended to ensure the effectiveness and repeatability of target gene amplification.
- 7) System preparation: please prepare in the ultra-clean workbench, and use pipette tips and reaction tubes without nuclease residues; it is recommended to use pipette tips with filter elements. Avoid cross-contamination and aerosol contamination.
- 8) Extension: Temperature and time can be appropriately adjusted according to the T_m value of the designed primers.

viii. Case Study

Calf Thymus genome DNA Template, triple qPCR (FAM — ; HEX — ; ROX —)

