

# HS Universal qPCR Master Mix, ROX plus

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## 1. Product Introduction

This product is a specialized premix for qPCR reactions using the SYBR Green I intercalating fluorescence method. The core component, Hot-start Taq, is modified based on an antibody method and paired with an optimally buffered system for qPCR, significantly enhancing amplification specificity and detection sensitivity for low-copy genes. It achieves excellent amplification linearity across a wide quantitative range, enabling accurate quantification and detection of target genes with good reproducibility and high reliability. This product contains ROX Reference Dye and is compatible with most qPCR instruments. As a 2× premix, it requires only the addition of primers and template for convenient use.

## 2. Precautions

- 2.1 Before use, gently invert the tube several times to mix the contents uniformly without creating bubbles. Perform a brief, gentle centrifugation before use. Inadequate mixing may reduce reaction performance. Do not use a vortex mixer for mixing.
- 2.2 After thawing, place the reagent on ice.
- 2.3 Always use new (non-contaminated) pipette tips, microtubes, etc., for preparing and aliquoting the reaction mixture to avoid contamination.

## 3. Shipping and Storage

Shipped on wet ice. Upon receipt, store at -20°C protected from light.

## 4. Experimental Procedure

Prepare the following PCR reaction system:

Table 1. HS Universal qPCR Master Mix, ROX plus Reaction Setup

Component	Volume
2 × HS Universal qPCR Master Mix, ROX plus	10 μL
Primer F (10 μM)	0.4 μL
Primer R (10 μM)	0.4 μL
Template DNA	X μL
ddH <sub>2</sub> O	Up to 20 μL

Recommended PCR Protocol:

Table 2. HS Universal qPCR Master Mix, ROX plus Reaction Setup

Step	Temperature	Time	Cycles
Pre-denaturation	95°C	30 sec~3 min	1 Cycle
Cycling	95°C	10 sec	40 Cycles
	55~60°C	10~30 sec	
	95°C	15 sec	
Melt Curve	60°C	60 sec	1 Cycle
	95°C	15 sec	

The pre-denaturation condition of 95°C for 30 seconds is suitable for most amplification reactions. If the template structure is complex or has high GC content, the pre-denaturation time can be extended to 3 minutes to improve pre-denaturation effectiveness and facilitate better template

release for improved experimental results.

### 5. Related Products

Product	Cat.No.	Size
HS Universal qPCR Master Mix, ROX plus	BR0015-01	5*1 mL