



*Instruction for Use*

## ***2X Accurate Taq HS PCR Master Mix***

AG11207

Version.V1E1

**Research Use Only**  
**Not For Diagnosis Procedures**

## 1. Description

This Product is optimized for conventional PCR (Polymerase Chain Reaction) amplification experiment as a 2X concentration premixed reagent. This kit is ready for use after simply adding templates and primer sets. This kit is designated for Hot Start PCR with build in Taq Monoclonal Antibody to inhibit Taq DNA Polymerase until reaching the activation temperature. Hot Start PCR greatly reduces non-specific amplification and primer d-dimers. This kit would generate the PCR product with a A nucleotide by the 3'end, which could be directly used for downstream T vector cloning.

## 2. Kit Information

Kit Name	Cat. No	Specification
2X Accurate Taq HS PCR Master Mix	AG 11207	120 rxns / 50 $\mu$ l

## 3. Transportation and Storage

Storage	Store at $-20^{\circ}\text{C}$
Transportation	Transport at $-20^{\circ}\text{C}$ Dry Ice or Blue Ice Condition

## 4. Kit Components

Kit Components	Volume
2X Accurate Taq HS PCR Master Mix	500 $\mu$ l x 6 pcs
RNase free water	1 ml x 3 pcs

## 5. Protocol

### 5.1 Reagent Preparation

The final reaction volume in this protocol is 50 $\mu$ l. The volumes given here may be scaled for larger or smaller reaction volume.

Kit Components	Final Concentration	Volume of 50 $\mu$ l Reaction
2X Accurate Taq HS PCR Master Mix <sup>*1</sup>	1X	25 $\mu$ l
Primer F (10 $\mu$ M)	0.2 $\mu$ M <sup>*3</sup>	1 $\mu$ l
Primer R (10 $\mu$ M)	0.2 $\mu$ M <sup>*3</sup>	1 $\mu$ l
Template	$\leq$ 500 ng <sup>*2</sup>	-
RNase free water	-	Up to 50 $\mu$ l

\*1: For the first use of the 2 $\times$  Accurate Taq HS PCR Master Mix, centrifuge the tube before opening to prevent enzyme loss.

\*2: Generally, it is recommended to add no more than 500 ng of template DNA. Adjust the template amount as needed based on experimental requirements.

\*3: The primer concentration is typically used at a final concentration of 0.2  $\mu$ M. This can be adjusted within the range of 0.2–1.0  $\mu$ M depending on experimental results.

### 5.2 Thermal Cycling Program

The cycling parameters below are offered as a guideline and may be modified as necessary for optimal results.

Step	Temperature	Time	Number of Cycles
Initial-Denaturation	94 $^{\circ}\text{C}$	30 sec	1
Denaturation <sup>*2</sup>	98 $^{\circ}\text{C}$	10 sec	
Annealing	55 $^{\circ}\text{C}$	30 sec	25~35

Extension* <sup>3</sup>	72°C	1 min	
Final Extension	72°C	2 min	1

\* The denaturation temperature can be adjusted based on the equipment used, typically set at 94°C for 20–30 seconds or 98°C for 5–10 seconds.

\* The annealing temperature primarily depends on the T<sub>m</sub> values of the primers. It is generally recommended to set the annealing temperature at T<sub>m</sub> ± 5°C.

## 6. Result Analysis

Collect and Purify the PCR product. Then analyse via Agarose Gel Electrophoresis.



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