



*Instruction for Use*

## **2X Accurate Taq Master Mix (dye plus)**

AG11009 AG11010

Version.V2E1

**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 premixed with color dye so that the electrophoresis product is easy to observe with green color indicator. 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
<i>2X Accurate Taq</i> Master Mix (dye plus)	AG 11009	120 rxns / 50 $\mu$ l
	AG 11010	240 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

### *Cat. No AG 11009*

Kit Components	Volume
<i>2X Accurate Taq</i> Master Mix (dye plus)	500 $\mu$ l x 6 pcs
RNase free water	1 ml x 3pcs

### *Cat. No AG 11010*

Kit Components	Volume
<i>2X Accurate Taq</i> Master Mix (dye plus)	500 $\mu$ l x 12 pcs
RNase free water	1 ml x 6pcs

## 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.

Components	Final Concentration	Volume
<i>2X Accurate Taq</i> Master Mix (dye plus) <sup>*1</sup>	1 X	25 $\mu$ L
Template	$\leq 500$ ng <sup>*2</sup>	-
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
RNase free water	-	Up to 50 $\mu$ L

\*1: Thaw the reagent tube, and vigorously vortex for 30–60 seconds to ensure homogeneity before use. Briefly centrifuge to collect contents at the bottom of the tube.

\*2: Recommended final concentration is less than 500 ng. It could be optimized per experiment.

\*3: Recommended final concentration for Primer is 0.2 $\mu$ M, could be optimized between 0.2 ~ 1.0 $\mu$ M.

\*4: Preparation Step is recommended to be conducted on Ice or cold environment.

## 5.2 Thermal Cycling Program

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

(As example for target DNA length of 1kb)

Step	Temperature	Time	Number of Cycles
Initial-Denaturation	94°C	30 sec	1
Denaturation*	98°C	10 sec	
Annealing	55°C	30 sec	25~35
Extension	72°C	1 min	
Final Extension	72°C	2 min	1

\*: Could be adjusted based on the instrument model and experiment requirement, recommended to be as :  
94°C 20 ~ 30 sec; 98°C 5 ~ 10 sec.

Annealing Temperature is recommended to be  $\pm 5^{\circ}\text{C}$  of the  $T_m$  Value of upstream downstream primers.

## 6. Result Analysis

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



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AG 11009/AG11010  
AG Bio Accurate Biology

2X Accurate Taq Master Mix (dye plus)