艾科瑞生物
Accurate Biology

Instruction for Use

Accurate Taq HS DNA Polymerase

AG11203 AG11204
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
Accurate Taq HS DNA Polymerase (Mg^{2+} and dNTPs plus)	AG11203	250U (200 rxns / 50 µl)
Accurate Taq HS DNA Polymerase (Mg^{2} free and dNTPs plus)	AG11204	250U (200 rxns / 50 µl)

3. Transportation and Storage

Storage	Store at –20°C
Transportation	Transport at –20°C Dry Ice or Blue Ice Condition

4. Kit Components

Cat. No AG11203

Kit Components	Volume
Accurate Taq HS DNA Polymerase (5 U /µl)	50 µl
10X Taq PCR Buffer (Mg^{2+} plus)	1 ml
dNTP Mix (10mM each)	200 µl

Cat. No AG11204

Kit Components	Volume
Accurate Taq HS DNA Polymerase (5 U /µl)	50 µl
10X Taq PCR Buffer (Mg^{2+} plus)	1 ml
$MgCl_2$ Solution (50 mM)	500 µl
dNTP Mix (10mM each)	200 µl

5. Protocol

5.1 Reagent Preparation

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

Cat. No AG11203

Components	Final Concentration	Volume
Accurate Taq HS DNA Polymerase (5U /ul) *1	1 .25 U	0.25 µl
10X Taq PCR Buffer (Mg^{2+} plus)	1X	5 ul
dNTP Mix (10mM each)	0.2 mM	1 µl
Template	≤ 500 ng*2	-
Primer F（10µM）	0.2 µM*3	1 µl
Primer R（10µM）	0.2 µM*3	1 µl
RNase free water	-	Up to 50 µl

*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 0.2μM, could be optimized between 0.2 ~ 1.0μM.

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

Cat. No AG11204

Components	Final Concentration	Volume
Accurate Taq HS DNA Polymerase (5U /ul) *1	1 .25 U	0.25 μl
10X Taq PCR Buffer (Mg^{2+} plus)	1X	5 μl
$MgCl_2$ Solution (50 mM) *2	1.5 mM	1.5 μl
dNTP Mix (10mM each)	0.2 mM	1 μl
Template	≤ 500 ng*3	-
Primer F（10μM）	0.2 μM*4	1 μl
Primer R（10μM）	0.2 μM*4	1 μl
RNase free water	-	Up to 50 μl

*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: $MaCl_2$ concentration could be adjusted upon experiment.

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

*4： Recommended final concentration for Primer is 0.2μM, could be optimized between 0.2 ~ 1.0μM.

*5： 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 ±5°C of the Tm Value of upstream downstream primers.

6. Result Analysis

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

Accurate Biotechnology (Hunan) Co., Ltd
Hunan Inspection Industrial Park, Bachelor Road,
Yuelu District, Changsha City, Hunan Province, China
service@agbio.com.cn
+86 400 767 6022
en.agbio.com.cn
Research Use Only