

## Product Manual

Product Name	ARMS Taq DNA Polymerase
Source	Recombinant expression in Escherichia coli
Catalog Number	CSB-DEM073
Physical Form	Liquid
Enzyme activity	5U/ $\mu$ L
Storage Conditions	-20 $\pm$ 5 $^{\circ}$ C
Storage Buffer	10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5% Tween 20, 0.5% NP-40, 50% Glycerol
Activity definition	Within 30 minutes at 72 $^{\circ}$ C, the amount of enzyme required to incorporate 10 nmol of deoxynucleotides into acid-insoluble material is 1 unit (U).
Quality Control	No residual nucleases and exonucleases
Shelf Life	24 months

### Product Description

ARMS Taq DNA Polymerase is a hot-start Taq DNA polymerase that has been upgraded and recombined, modified by antibody method, and has several times the specificity of ordinary Taq enzymes, while maintaining high DNA polymerase activity. With an optimized buffer system, it has strong blocking ability and maximizes mismatch recognition ability, making it suitable for detecting related ARMS-PCR.

### Product Components

Label	Component	Specifications		
1	5 $\times$ ARMS PCR buffer	1.2mL	6mL	12mL
2	ARMS Taq DNA Polymerase	500 U	2500U	5000 U

### Operating instructions

#### Recommended Reaction System

Components	Volume
ddH <sub>2</sub> O	Up to 30 $\mu$ L
5 $\times$ ARMS PCR buffer	6 $\mu$ L
10 mM dNTPs	0.6 $\mu$ L
Primer F (10 $\mu$ M)	0.6 $\mu$ L
Primer R (10 $\mu$ M)	0.6 $\mu$ L

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Probe(10 $\mu$ M)	0.3 $\mu$ L
ARMS Taq DNA Polymerase	0.5 $\mu$ L
Template DNA	X $\mu$ L

**Notes:a. Primer concentration:** Generally, a final primer concentration of 0.2 $\mu$ M in the reaction system can achieve good results. When the reaction performance is poor, adjust the primer concentration within the range of 0.1 $\mu$ M-1.0 $\mu$ M.

**b. Template concentration:** Animal and plant genomic DNA 0.1 ~ 1 $\mu$ g, E. coli genomic DNA 10 ~ 100 ng,  $\lambda$ DNA 0.1 ~ 10 ng, plasmid DNA 0.1 ~ 10 ng. If the template is undiluted cDNA, the volume should not exceed 1/10 of the total volume of the qPCR reaction.

**Recommended PCR Reaction Program**

Temperature	Time	Number of Cycles
95 $^{\circ}$ C	3 min	1
95 $^{\circ}$ C	10 s	40-45
45-68 $^{\circ}$ C	30 s*	

**Note:c. Annealing temperature and time:** The annealing temperature needs to be adjusted according to the T<sub>m</sub> value of the primer, generally set to 3-5 $^{\circ}$ C below the T<sub>m</sub> value of the primer. [\*]Collect fluorescence.