

Catalog	Unit
TBP0156-800	800 U
TBP0156-4000	4000 U

### Description

Bst DNA Polymerase, Large Fragment, is a highly purified recombinant enzyme expressed in Escherichia coli, with its gene originally derived from Bacillus stearothermophilus and subsequently modified through targeted point mutations to enhance its performance. Its strong chain replacement activity enables efficient isothermal amplification, making Bst DNA Polymerase particularly well-suited for Loop-mediated Isothermal Amplification (LAMP), Multiple Displacement Amplification (MDA), Whole Genome Amplification (WGA), and library preparation for sequencing.

### Product Details

**Purity:** < 98% by SDSPAGE

**Storage:** Stored at -20°C

### Components

Component	800U	4000U
Bst DNA Polymerase, 8U/μL	100μL	2×250μL
10×Bst Reaction Buffer	1.5mL	2×1.5mL
100mM MgSO <sub>4</sub> Solution	1.5mL	2×1.5mL

### Protocol

Component	25μL Reaction System	Final Concentration
10×Reaction Buffer	25μL	1× (include 2mM MgSO <sub>4</sub> )
MgSO <sub>4</sub> (100mM)	1.5μL	6mM (total 8mM)
dNTP Mix (10mM)	1.5μL	Each 1.4mM
FIP/BIP Primers (25×)	1μL	1.6μM
F3/B3 Primers (25×)	1μL	0.2μM
LoopF/B Primers (25×)	1μL	0.4μM
Bst DNA Polymerase, 8U/μL	1μL	320 U/mL DNA
Sample	Variable	>10 copies or more
Sterile water	Add to 25μL	
Total volume	25μL	

Note:

- 1) LAMP primers are composed of 4 or 6 primers (including Loop), 25× primers include: 40μM FIP, 40μM BIP, 5μM F3, 5μM B3, 10μM LoopF, 10μM LoopB.
- 2) If the reaction condition needs to be optimized, the concentration of Mg<sup>2+</sup> can be adjusted (4-10mM), enzyme amount (0.04-0.32 U/μL) or change the reaction temperature (50-68°C).
- 3) The reaction temperature should not exceed 70°C, which cannot be used in thermal cycle sequencing or PCR instrument.

### For research use only