Bst DNA Polymerase
Cat-No: A600; 2000 units
sequencing through problematic secondary structures

Features:

- reverse transcription activity

- increased activity

Applications:

- nucleic acid amplification methods, including isothermal amplification

- whole genome amplification

Description:

Bst DNA Polymerase, Large Fragment is the portion of the Bacillus stearothermophilus DNA Polymerase protein that contains the 5´ → 3´ polymerase activity, but lacks 5´ →3´ exonuclease activity.

Enzyme provide strong strand displacement activity. The optimum temperature is from 60-65 ºC. Bst becomes heat inactivated at 80 ºC. Bst Polymerase, Large Fragment is prepared from an E. coli strain containing a gene of the Bacillus stearothermophilus DNA Polymerase gene, lacking the 5´ → 3´ exonuclease domain.

Storage condition: @ -20°C in 10 mM Tris-HCl (pH 8.0 @ 25°C), 10 mM KCl, 1% BSA, 0,02% Tween 20, 50% glycerol.

Unit definition: One unit is defined at the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 65°C.

Purity: >97 %

Heat inactivation: @ 80°C for 20 minutes.

Concentration: 8 U / µl

Reaction buffer (10X): provided

MgSO4: Provided in a separate Tube

Storage: -20°C

Transport: on blue ice

Note:

- Recommended for long term storage: 0.1% Triton X-100

- Reaction temperatures above 70°C are not recommended.

- Bst DNA Polymerase cannot be used for thermal cycle sequencing.

Protocol:

Component	Final Concentration	25 µl Reaction
10X Buffer for Bst	1X (does not contain MgSO4)	2.5 µl
MgSO4 (100 mM)	8 mM total	2,0 µl
dNTP Mix (10 mM)	1.4 mM each	3.5 µl
FIP/BIP Primers (10X)	1.6 µM	1 µl
F3/B3 Primers (10X)	0.2 µM	1 µl
LoopF/B Primers (10X)	0.8 µM	1 µl
Bst Large fragment (8,000 U/ml)	80-320 U/ml	0.95-1.1 µl
DNA Sample	> 10 copies or more	NA
Nuclease-free Water		up to 25 µl
Total Reaction Volume		25 µl

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A600	Bst DNA Polymerase	2000 units

.. a good decision ..

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