For research use only

ISO9001

Bst DNA Polymerase, exo-

제 품 명	용 량	Cat. No.	비 고
Bst DNA Polymerase, exo-	6,000 unit	EBT-1701	120 unit/μl

Description

Bst DNA Polymerase exo- is a recombinant DNA polymerase from *Bacillus stearothermophilus*. Bst DNA Polymerase is purified from an *E.coli* strain carrying a plasmid with the cloned gene encoding large fragment of DNA polymerase. It contains the 5′→ 3′ polymerase activity, but lacks 5′→ 3′ exonuclease activity. For this reason, Bst DNA Polymerase can be effectively used in chain displacement reaction at high temperature, 65°C.

Applications

- Isothermal amplification (LAMP)
- Applications requiring strand-displacement DNA synthesis
- DNA sequencing through high GC regions
- Rapid sequencing from nanogram amounts of DNA template

Storage Buffer

120 unit/㎕ in 10 mM Tris-HCl, pH8.0, 50 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.1% Triton X-100, and 50% Glycerol.

10x Reaction Buffer w/ $MgSO_4$

200 mM Tris-HCl, pH8.8, 100 mM $(NH_4)_2SO_4$, 700 mM KCl, 30 mM $MgSO_4$, 0.1% Tween20.

Unit Definition

One unit of enzyme incorporates 10 nmole of dNTP into acid insoluble material in 30 min at 65°C.

QC Tests

Activity, SDS-PAGE purity, performance tests, genomic DNA contamination test, confirmation test for the absence of endo and exonucleases.

Storage Condition

Store at -20℃.

Standard Protocol

- Reaction condition
ex. (LAMP / Loop-mediated isothermal amplification)

PCR grade distilled water	- ㎕
10x Bst reaction buffer	2 ㎕
10 mM dNTP mix (2.5 mM each)	2 ㎕
FIP/BIP Primers (20X)	1 ㎕ (1.6 μM)
F3/B3 Primers (20X)	1 ㎕ (0.2 μM)
LF/LB Primers (20X)	1 ㎕ (0.4 μM)
Template DNA	- ㎕
Bst DNA Polymerase, exo-	0.2 - 1 ㎕

Adjust final vol. to 20 ㎕ with PCR grade distilled water

- Incubate reaction at 65°C for 60 min.

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