Bsu DNA Polymerase I, Large Fragment

Catalog #	3582	3585
Package Size	250 units	1,000 units
Concentration	5 units/µl	

Description

Bsu DNA Polymerase I, Large Fragment is a product of the Bacillus subtilis DNA polymerase I which lacks the N-terminal exonuclease domain (1-296 amino acids). It retains the 5´→ 3´ polymerase activity of DNA polymerase I but lacks the 5´→ 3´ exonuclease activity. This large fragment also lacks 3´→ 5´ exonuclease activity (1)

Applications

- Strand displacement DNA synthesis (2)
- Random primer labeling
- Second strand cDNA synthesis
- dA-tailing

Protein Purity

The physical purity of this enzyme is ≥99% as assessed by SDS-PAGE with Coomassie® blue staining (see figure below).

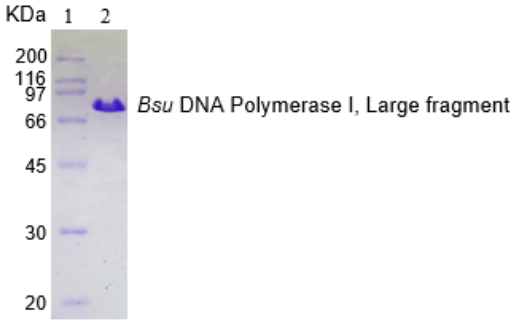

Fig: Lane 1. Protein marker and lane 2. *Bsu* DNA Polymerase I, Large fragment.

Product Source

E. coli strain expressing *Bsu* DNA Polymerase I gene lacking the N-terminal 5´→ 3´ exonuclease domain.

Product Includes

- *Bsu* DNA Polymerase I, Large fragment
- 10x *Bsu* DNA Polymerase I reaction buffer

1x *Bsu* DNA Polymerase I reaction buffer

10 mM Tris-HCl
50 mM KCl
10 mM $MgCl_2$
1 mM DTT
pH 7.9 @ 25°C

Storage Buffer

50 mM Tris-HCl
50 mM KCl
1 mM DTT
0.1 mM EDTA,
50% Glycerol
pH 7.5 @ 25ºC

Storage Temperature

-20ºC

Heal inactivation

70°C for 20 min

Unit Definition

One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTP into acid-insoluble form in 30 minutes at 37º C.

Quality Control assays

Bsu DNA Polymerase I, Large fragment is free from detectable nuclease activities.

References

1. Okazaki, T. et al. (1964) J. Biol. Chem. 239, 259–268.
2. Piepenburg, O. et al. (2006) PLOS Biology, 4, 1115–