EURx® MOLECULAR BIOLOGY PRODUCTS

Bsu DNA Polymerase (Large Fragment, exo⁻)

(Bacillus subtilis)

Cat. No.	size
E1450-01	200 units
E1450-02	1000 units

Unit Definition: One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 37°C.

Concentration: 5 U/µl

Storage Conditions: Store at -20°C.

References:

1. *Okazaki, T. et al. (1964). J. Biol.Chem.. 239, 259-268.*
2. *Piepenburg, O. et al. (2006). PLOSBiology. 4, 1115-1121.*

Large fragment of mesophilic *B. subtilis* DNA Polymerase I (1), which lacks the 5'→3' exonuclease activity and naturally lacks the 3'→5' exonuclease activity.

Description:

- Ideal for strand displacement DNA synthesis (2).
- The enzyme replicates DNA optimally at 37°C.
- Devoided of both 3'→5' exonuclease the 5'→3' exonuclease activities, while retaining the polymerase activity.
- Ultrapure, recombinant enzyme.
- Suitable for second strand cDNA synthesis.
- Can be used in random primer labeling and single dA tailing.
- Can be heat inactivated at 75°C for 20 minutes.
- Enzyme is not suitable for generating blunt ends because it lacks the 3'→5' exonuclease activity necessary to remove non-templated 3' additions.

Storage Buffer:

25 mM Tris-HCl (pH 7.5), 50 mM NaCl, 1 mM dithiothreitol, 0.1 mM EDTA and 50% (v/v) glycerol.

1 x Reaction Buffer:

10 mM Tris-HCl (pH 8.0), 50 mM NaCl, 10 mM $MgCl_2$, 1 mM dithiothreitol.

Quality Control:

All preparations are assayed for contaminating exonuclease, endonuclease and single and double-stranded DNase activities. Typical preparations are greater than 95% pure, as judged by SDS polyacrylamide gel electrophoresis. The enzyme is DNA-free.

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