



# **Bsu DNA Polymerase Large Fragment**

Manual

Catalog #	3582	3585	3587
Package Size	200 units	1000 units	2000 units
Volume	40µl	200µl	500µl
Concentration		5 units/μl	



# Important!

- -20°C Storage Required
- \* Immediately inspect packages
- \* Freeze upon receipt

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KDa

200

116

97

66

45

30

20

Fig. 1: Lane 1, Protein marker

fragment

1

2

Bsu DNA

Polymerase I,

Large fragment

#### **Description:**

Intact Genomics (ig<sup>®</sup>) 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  $5 \rightarrow 3'$ polymerase activity of DNA polymerase I but lacks the  $5' \rightarrow 3'$  exonuclease activity. This large fragment also lacks  $3' \rightarrow 5'$  exonuclease activity (1)

#### **Protein Purity:**

The physical purity of this enzyme is ≥98% as assessed by SDS-PAGE with Coomassie<sup>®</sup> blue staining (Fig. 1).

### **Applications:**

- Strand displacement DNA synthesis (2) •
- Random primer labeling ٠
- Second strand cDNA synthesis ٠
- dA-tailing

#### **Product Components:**



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

#### **Product Source:**

*E. coli* strain expressing Bsu DNA Polymerase I gene lacking the N-terminal  $5 \rightarrow 3'$  exonuclease domain.

#### **Storage Buffer:**

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

#### Heat Inactivation:

70°C for 20 min



#### **Quality Control:**

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

#### **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 37<sup>o</sup> C.

#### **References:**

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

#### **Related Products:**

- T4 UvsX DNA Recombinase (Cat.# 3562)
- T4 UvsY Protein (Cat.# 3572)
- Sau DNA Polymerase (Cat.# 3595)
- T4 gp32 Protein (Cat.# 3515)
- Exonuclease III (Cat.# 3415)
- Exonuclease IV (Nfo) (Cat.# 3425)

## **Ordering Information:**

- Order online within the USA. Place orders on **www.intactgenomics.com** using our secure Shopping Cart.
- Order by email, phone, or fax.
  Email: sales@intactgenomics.com
  Phone: (314) 942-3655 | Toll-free : 855-835-7172 | Fax: (314) 942-3656
- Order via our distributors.

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