

DNA Polymerase I Klenow Fragment



N104

Version 22.1

Product Description

The large (Klenow) fragment of DNA polymerase I is a proteolytic product of *E.coli* DNA polymerase I that has the 5'→3' DNA polymerase activity and 3'→5' exonuclease activity, but lacks 5'→3' exonuclease activity. Klenow retains the high fidelity of the holoenzyme without degrading 5' termini.

Components

Components	N104-01 5,000 U
Klenow Fragment (5 U/μl)	1 ml
10 × Blue Buffer	2 × 1 ml

Reaction Buffer

10 × Blue Buffer:

- 100 mM Tris-HCl pH 7.9 @25°C
- 500 mM NaCl
- 100 mM MgCl₂
- 10 mM DTT

Storage

Store at -30 ~ -15°C and transport at ≤0°C.

Applications

1. Preparation of probes with random primers.
2. Removal of 3' overhangs or fill-in of 5' overhangs to form blunt ends.

Source

Recombinant *E.coli* strains carrying the cloned *E.coli* DNA Polymerase I Klenow Fragment *exo⁻* gene.

Unit Definition

One unit of activity (U) is defined as the amount of enzyme required to incorporate 10 nmol of dNTP into acid-insoluble precipitates within 30 min at 37°C.

Notes

For research use only. Not for use in diagnostic procedures.

It is recommended to place the enzyme on ice during use and put it back to -20°C immediately after use.

