

DNA Polymerase I Klenow Fragment exo⁻

N105

Version 22.1



Product Description

The Klenow fragment (3'→5' exo⁻) is an N-terminal truncation of DNA polymerase I, which retains DNA polymerase activity but loses the 5'→3' exonuclease activity. Its mutations (D355A, E357A) abolish the 3'→5' exonuclease activity.

Components

Components	N105-01 5,000 U
Klenow Fragment exo ⁻ (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. dA-tailing to the 3' end.
2. Preparation of probes with random primers.
3. Random priming labeling.

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 the 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.

1. The Klenow fragment (3'→5' exo⁻) lacks the 3'→5' exonuclease activity, so it can not be used to generate blunt ends.
2. It is recommended to place the enzyme on ice during use and put it back to -20°C immediately after use.

