

# Klenow Large Fragment DNA Polymerase



Enzymes and Reagents

PCR | qPCR | RT | Kits | Oligonucleotides

## Performance

Klenow Fragment is the large fragment of DNA Polymerase I that retains its 5'-3' polymerase, 3'-5' exonuclease and strand displacement activities. The enzyme lacks the 5'-3' exonuclease activity of intact DNA polymerase I. Klenow retains the polymerization fidelity of the holoenzyme without degrading 5' termini.

The enzyme is greater than 98% pure as indicated by SDS-polyacrylamide gel electrophoresis and contains no detected endonuclease activity. Incubation of 10 units of Klenow with supercoiled plasmid DNA produced no nicked molecules after 20 hours at 37°C as determined by agarose gel electrophoresis analysis.

## Applications

- DNA blunting by filling-in 5'-overhangs with unlabeled or labeled dNTPs
- cDNA second-strand synthesis
- Generate single-stranded DNA probes using random primers
- Site-directed DNA mutagenesis using synthetic oligonucleotides
- Blunting 3'-overhangs by Dideoxy DNA sequencing of single- or double-stranded DNA templates

## Features

- Isolated from a recombinant source
- Generates probes using random primers
- Strand displacement activity
- Dideoxy sequencing compatible

Item Number	Units
KP-LF-0300	300
KP-LF-0600	600
KP-LF-1500	1500

## Concentration

- 5 units/ $\mu$ l

## Unit Definition

- One unit is defined as the amount of enzyme required to convert 10 nmoles of dNTPs to an acid insoluble form in 30 minutes at 37°C.

## Supplied in

- 100 mM KPO<sub>4</sub> pH 6.5, 1 mM DTT and 50% [v/v] glycerol

## Supplied With

- 10x Reaction Buffer: 500 mM Tris-HCl pH 7.6 at 25 °C, 50 mM MgCl<sub>2</sub> and 10 mM DTT



TO ORDER, REQUEST SAMPLES OR FOR MORE INFORMATION, CONTACT:  
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