



DNA  
Polymerase I  
Large(Klenow)  
Fragment



**S E325**  
200 units  
5,000 u/ml

Lot: 11  
Exp: 07/20  
Store at -20C

For more details  
scan the code



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## CERTIFICATE OF ANALYSIS

Source:  
An *E.coli* strain that carries the cloned DNA  
Polymerasel (Klenow fragment) gene.

DNA Polymerase I, Large (Klenow) Fragment is a  
proteolytic product of *E.Coli* DNA Polymerase I which  
retains polymerization and 3'->5' exonuclease activity,  
but has lost 5'->3' exonuclease activity.

Storage Conditions:  
10 mM  $\text{KH}_2\text{PO}_4$  (pH 7.5), 50 mM KCl, 7 mM  
2-mercaptoethanol, 0,5 mM EDTA, 50% glycerol.  
Store at - 20°C

1X SE-Klenow Fragment Buffer:  
50 mM Tris-HCl (pH 7.6 @ 25°C), 10 mM  $\text{MgCl}_2$ ,  
5 mM DTT.

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Applications:  
-dideoxy sequencing;  
-polishing ends;  
-second strand cDNA synthesis.

Unit Definition:  
One unit is defined as the amount of enzyme required  
to incorporate 10 nmol of dNTPs into an acid-insoluble  
material in 30 minutes at 37°C.  
Unit Assay Conditions: 1x Klenow Buffer, 33  $\mu\text{M}$  dNTPs  
including [ $^3\text{H}$ ] - dTTP and 70  $\mu\text{g/ml}$  denaturated calf  
thymus DNA.

Quality Control Assays:  
Nonspecific endonuclease assay:  
No appearance of nicked DNA was detected after  
incubation of 1 $\mu\text{g}$  supercoiled pUC19 DNA with 5 units  
of enzyme for 4 hours at 37°C.  
No alteration of the pattern of DNA bands was  
detected after incubation of 1 $\mu\text{g}$   $\lambda$ /HindIII DNA  
fragments with 5 units of enzyme in 50  $\mu\text{l}$  of reaction

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mixture for 16 hours at 37°C.

Reagents Supplied with Enzyme:  
10X SE-Klenow Buffer.

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