

DNA Polymerase I Klenow Fragment exo-

Product Information

Cat#	DIA-583
Source	Escherichia coli
Description	<p>This N-terminally truncated form of DNA polymerase I retains DNA polymerase activity but lacks 5'→3' exonuclease activity. Additional mutations (D355A, E357A) eliminate its 3'→5' exonuclease activity.</p> <p>As a result, the enzyme provides polymerase activity without proofreading, making it suitable for applications requiring controlled nucleotide incorporation.</p>
Unit Definition	One unit is defined as the amount of enzyme required to incorporate 10 nmol of dNTP into acid-insoluble material within 30 minutes at 37 °C.
Storage	-20 °C
Buffer	25 mM Tris-HCl pH 7.4, 0.1 mM EDTA, 1 mM DTT, 50% glycerol
Applications	Dideoxy sequencing; random primer labeling; 3' dA-tailing during library preparation.
Product Overview	<p>3' dA-tailing.</p> <p>Probe preparation using random primers.</p> <p>Random primer labeling.</p>
Package	<p>5000 U</p> <p>Klenow Fragment exo- (5 U/μL): 1 mL</p> <p>10× Blue Buffer (100 mM Tris-HCl pH 7.9, 500 mM NaCl, 100 mM MgCl₂, 10 mM DTT): 2 mL</p>