

GeNei™ INSTANT Cloning Kit for Amplified Products

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GeNei™ INSTANT Ligation Kit

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T4 Polynucleotide Kinase

Description: T4 Polynucleotide Kinase catalyses the transfer of gamma phosphate group from ATP to the 5'-hydroxy group of polynucleotides.

Unit Definition: One unit is defined as the amount of enzyme catalysing the production of one nmole of acid insoluble ³²P in 30 minutes at 37° C.

Assay Buffer (1X): 70 mM Tris-HCl (pH 7.6), 10 mM MgCl₂ and 5 mM DTT.

Buffer supplied at **10X** concentration.

Storage Buffer: 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM DTT, 50 mM KCl, 50% Glycerol and 200 µg/ml Nuclease free BSA.

Application: T4 Polynucleotide Kinase is very useful in the 5' end labelling of nucleic acids.

Performance Test: Labelling and Kination efficiencies are evaluated.

Store at -20°C

Ordering Information:

Product	Size	Cat #
T4 Poly nucleotide Kinase	200 U	105923
	1000 U	105922

DNA Polymerase I Klenow Fragment (Sequencing Grade)

Description: The large fragment of DNA polymerase I, also known as the Klenow fragment has two of the three properties of the intact DNA Polymerase I enzyme. The Klenow fragment has 5'-3' DNA polymerase activity and 3'-5' exonuclease activity. However it lacks the 5'-3' exonuclease activity.

Unit Definition:

One unit is defined as the amount of enzyme required to convert 10 nanomoles of total deoxyribonucleotides to an acid insoluble material in 30 minutes at 37° C.

Assay Buffer (1X): 50 mM Tris-HCl (pH 7.6), 10 mM MgCl₂

Buffer supplied at **10X** concentration.

Storage Buffer: 100 mM Tris-HCl (pH 7.5), 10 mM 2-Mercaptoethanol and 50% Glycerol.

Application: Random-primed DNA labelling using random oligonucleotides as primer, for incorporation of non-radio actively labelled and (³²P)-labelled nucleotides.

Filling-in reaction for blunt-end formation of recessed (staggered) ends.

Performance Test:

Enzyme tested for its efficiency in **End Filling** and **random primer labelling** reactions.

Store at -20°C

Ordering Information:

Product	Size	Cat #
DNA Polymerase I (Klenow)	50 U	105921
	250 U	105920