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Manual

Klenow fragment exo$^-$

Fragment of DNA polymerase I from *E. coli*. Concentration 5 U/µl.

catalog #	size
1012-300	300 U

For research use only.

Guarantee

A&A Biotechnology provides guarantee on this product.
The company does not guarantee correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

Description

Klenow fragment exo$^-$ is the large fragment of DNA polymerase I from *E.coli*.
Enzyme possesses 5'-3' polymerase activity, but lacks 3'-5' exonuclease activity (proofreading) and 5'-3' exonuclease activity. 3'-5' exonuclease activity is eliminated by mutations in 3'-5' exonuclease active site.

Contents

	1012-300	**storage**
Klenow fragment exo$^-$ storage buffer: 25 mM Tris-HCl, pH 8.0, 25 mM NaCl, 50% glicerol (v/v).	300 U (5 U/µl)	-20 °C
Klenow reaction buffer 10x PCR reaction buffer: 50 mM $MgCl_2$, 500 mM Tris-HCl, pH 8.0.	1 x 1.5 ml	-20 °C

Application

- random-primed DNA labeling
- labeling by fill-in 5'-overhangs of dsDNA
- strand displacement amplification (SDA)
- sequencing Sanger method
- pyrosequencing

Comments and recommendations

- incorporates modified nucleotides (e.g. Cyn3-, Cy5-, fluorescein-, rhodamine-, aminoallyl-, biotin-labeled nucleotides).
- inactivation by incubation for 10 min at 75 °C or by addition of EDTA.
- it is not recommended for DNA blunting reaction prior to DNA ligation since it frequently adds one or more extra nucleotides to 3'-terminus of blunt-end DNA substrates in non-templates directed fashion.
- the enzyme is active in restriction enzymes, PCR and RT buffers.

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