enzynomics

Klenow DNA Polymerase, exo-

Cat.#	Size
KP002S	200 units
KP002L	1,000 units
KP002H	1,000 units

Store at -20℃

Supplied with: 10X Klenow DNA Polymerase Buffer
Sterile water

India Contact:

Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura,
Delhi – 110034 (INDIA).
Ph: +91-11-42208000, 42208111, 42208222
Mobile: +91-9810521400
Fax: +91-11-42208444
Email: customerservice@lifetechindia.com
Web: www.lifetechindia.com

Product description

Klenow DNA polymerase, exo- is an N-terminal truncation of DNA polymerase I purified from a recombinant source. It has lost the 5′ → 3′ exonuclease activity but retains polymerase activity. D355A, E357A mutations abolish the 3′ → 5′ exonuclease activity.

Characteristics

- Isolated from a recombinant source
- Generates probes using random primers
- Dideoxy sequencing
- Moderate strand displacement activity

Applications

-Random priming labeling
-DNA sequencing by the Sanger dideoxy method
-Second strand cDNA synthesis
-Second strand synthesis in mutagenesis protocols

Unit Definition

One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTP into acid insoluble material in 30 minutes at 37℃.

Storage Conditions

25 mM Tris-HCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, pH 7.4 @ 25℃, Store at -20℃.

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Heat Inactivation

75℃ for 20 min

Quality Control

- DNase Activity
- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free

Cautions

- Klenow Fragment (exo-) remove non-templated 3′ additions and not suitable for blunt ends generation.
- Klenow Fragment (exo-) is also active in all four EzBuffers in the presence of with dNTPs,.
- unit/5 µl reaction volume is recommended for sequencing with Klenow Fragment (exo-) by dideoxy method of Sanger et al.

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Your Molecular & Cell Technology Partner

Standard PCR conditions

- Fill-in reaction of 3' ends of duplex DNA

10X Klenow DNA Polymerase Buffer	2 µl
Klenow DNA Polymerase (5 units/µl)	1 µl
dNTP Mixture (0.5 mM each)	0.5 µl
DNA digested with restriction endonucleases (0.1-4 µg/µl)	1 µl
Sterile water	up to 20 µl

→ Incubate at 37℃ for 10 min.
→ Terminate reaction by incubating at 75℃ for 20 min.

- Radioisotope labeling of double-strand DNA with recessed 3' ends

10X Klenow DNA Polymerase Buffer	2 µl
Klenow DNA Polymerase (5 units/µl)	0.2 µl
dNTP Mixture (0.5 mM each)	2.5 µl
[α-32P] dNTP (3,000 Ci/mmol)	80 µCi
Digested DNA (0.1-4 µg/µl)	1 µl
Sterile water	up to 20 µl

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