EURx® MOLECULAR BIOLOGY PRODUCTS

Klenow Fragment

(Escherichia coli)

Cat. No.	size
E1091-01	200 units
E1091-02	1000 units

Unit Definition: One unit is defined as the amount of enzyme required to incorporate 10 nmoles of total nucleotide into acid-insoluble material in 30 minutes at 37°C.

Storage Conditions: Store at -20°C.

References:

1. *Joyce, C.M. and Grindley, N.D. (1983) Proc. Natl. Acad. Sci. U.S.A. 80, 1830-1834.*
2. *Sanger, F., Nicklen, S. and Coulson, A.R. (1977) Proc. Natl. Acad. Sci. U.S.A. 74, 5463-5467.*
3. *Houdebine, L.M. (1976) Nucleic Acids Res. 3, 615-630.*
4. *Sambrook, J., Fritsch, E.F., and Maniatis, T (1989) Molecular Cloning: A Laboratory Manual, second edition pp. 5.34, 5.40-5.43 Cold Spring Harbor Laboratory, Cold Spring Harbor.*

Large fragment of *E. coli* DNA Polymerase I enzyme which retains both the polymerase and the proofreading 3'→5' exonuclease activities of Polymerase I.

Description:

- Lacks the 5'-exonuclease activity (1).
- Ultrapure recombinant enzyme.
- Used for Sanger dideoxy sequencing (2).
- Suitable for second strand cDNA synthesis (3).
- Used for 3'-end labeling and filling in 5'-protruding sticky ends (4).

Storage Buffer:

50 mM potassium phosphate (pH 7.0), 0.25 mM dithiothreitol and 50% (v/v) glycerol.

10 x Reaction Buffer:

500 mM Tris-HCl (pH 7.8 at 25°C), 100 mM $MgSO_4$, 10 mM dithiothreitol.

Assay Conditions:

67 mM potassium phosphate (pH 7.4), 6.7 mM $MgCl_2$, 1 mM dithiothreitol, 0.033 mM each dCTP, dGTP, dTTP and [α-^{32}P]dATP and 4.5 µg activated DNA. Incubation is at 37°C for 30 min in a reaction volume of 100 µl.

Quality Control:

All preparations are assayed for contaminating endonuclease and 5'-exonuclease activities. Typical preparations are greater than 95% pure, as judged by SDS polyacrylamide gel electrophoresis.

EURx Ltd. 80-297 Gdańsk Poland ul. Przyrodników 3, NIP 957-07-05-191, KRS 0000202039
www.eurx.com.pl, orders@eurx.com.pl, *tel.* +48 58 524 06 97, *fax* +48 58 341 74 23