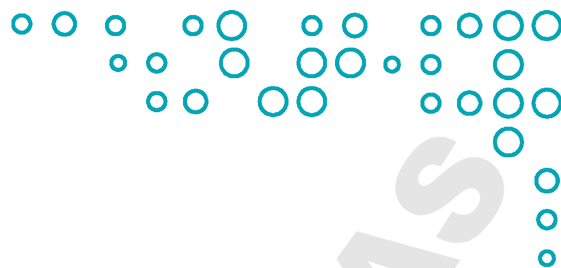
EURx® MOLECULAR BIOLOGY PRODUCTS



Exonuclease I

(E. coli strain that carries the cloned Exo I gene)

Cat. No.	size
E1150-01	4 000 units
E1150-02	20 000 units

Unit Definition:

One unit is defined as the amount of enzyme that will catalyze the release of 10 nmol of acid-soluble nucleotide in a total reaction volume of 50 µl in 30 minutes at 37°C.

Storage Conditions:

Store at -20°C.

References:

1. Lehman and Nussbaum (1964) J. Biol. Chem., 239, 2628.
2. Kushner, S.R. et al. (1971) Proc. Natl. Acad. Sci. USA 68, 824.
3. Kushner, S.R. et al. (1972) Proc. Natl. Acad. Sci. USA 69, 1366.
4. Goldmark and Linn (1972) J. Biol. Chem., 247, 184.
5. Rosamond et al. (1979) J. Biol. Chem., 254, 8646
6. Werle et al. (1994) Nuc. Acids Research 22(20): 4354 –4355

Catalyzes the removal of nucleotides from single-stranded DNA in the 3' to 5' direction (1, 2, 3).

Description:

- Removal of residual ssDNA, including oligos, from reaction mixture (6).
- Will not degrade double-stranded DNA or RNA (4).
- Requires magnesium and presence of a free 3′-hydroxyl terminus (5).
- Active under a wide variety of buffer conditions, allowing addition of the enzyme directly into most reaction mixtures.

Assay Conditions:

67 mM Glycine-KOH (pH 9.5 at 25°C), 10 mM β-mercaptoethanol, 6.7 mM $MgCl_2$, 0.17 mg/ml single-stranded [3H]-DNA. Incubation is at 37°C for 10 min in a reaction volume of 50µl.

10 x Reaction Buffer:

670 mM Glycine-KOH (pH 9.5 at 25°C), 100 mM β-mercaptoethanol, 67 mM $MgCl_2$.

10 x Storage Buffer:

10 mM Tris-HCl (pH 7.5 at 25°C), 5 mM β-mercaptoethanol, 100 mM NaCl, 0.5 mM EDTA, 100 µg/ml BSA, 50% glycerol.

Inactivation:

Inactivated by heating at 80°C for 15 min.

Quality Control:

All preparations are assayed for contaminating RNase, endonuclease, and double-stranded exonuclease activities.

Standard PCR Clean-up Protocol:

1. Mix:

Component:	Amount:
PCR just after amplification	25–50 µl
Exonuclease I 20 U/µl	0.5 µl
Polar-BAP 5 U/µl (Cat. No. E1027)	1 µl

2. Incubate for 15 min at 37°C.
3. Heat Inactivate 15 min at 80°C.

Note 1: Up to 5 µl may be used directly to sequencing without any other purification.
Note 2: For sequencing it is recommended to use PCR without unspecific products.
Note 3: No specific buffer required.

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This product is developed, designed and sold exclusively for research purposes and in vitro use only.

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