



Exonuclease I

recombinant, *E. coli*

Cat. No.	Amount
EN-177S	2.000 units
EN-177L	5 x 2000 units

Unit Definition: One unit is defined as the amount of enzyme that catalyses the release of 10 nmol acid-soluble nucleotides in a total reaction volume of 50 µl within 30 minutes at 37 °C.

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Additional Storage Conditions: avoid freeze/thaw cycles

Shelf Life: 12 months

Form: liquid

Concentration: 20 units/µl

Applications:

- removal of residual ssDNA, including oligonucleotides, from reaction mixtures
- does not degrade double-stranded DNA or RNA
- requires magnesium and presence of free, accessible 3'-hydroxyl-termini
- active in a wide variety of buffer conditions, allowing for direct addition of enzyme to most reaction mixtures

Description:

Catalyses removal of nucleotides from single-stranded DNA in 3' → 5' direction.

10x Reaction Buffer:

670 mM Glycine-KOH (pH 9.5 at 25 °C), 100 mM 2-mercaptoethanol and 67 mM MgCl₂.

Assay Conditions:

67 mM Glycine-KOH (pH 9.5 at 25 °C), 10 mM 2-mercaptoethanol, 6.7 mM MgCl₂, 0.17 mg/ml single-stranded [³H]-DNA. Incubation is at 37 °C for 10 min in a reaction volume of 50 µl.

Related Products:

Shrimp Alkaline Phosphatase (rSAP), #EN-174
SAP-Exo Kit, #PP-218

Selected References:

Lehman *et al.* (1964) *J. Biol. Chem.* **239**:2628.

Kushne *et al.* (1971) *Proc. Natl. Acad. Sci. USA* **68**:824.

Kushner *et al.* (1972) *Proc. Natl. Acad. Sci. USA* **69**:1366.

Goldmark *et al.* (1972) *J. Biol. Chem.* **247**:184.

Rosamond *et al.* (1979) *J. Biol. Chem.* **254**:8646.

Werle *et al.* (1994) *Nuc. Acids Research* **22** (20):4354.