



Alkaline Phosphatase

(Calf Intestine)

Cat. No.	size
E1025-01	1000 u
E1025-02	5000 u

Unit Definition:

One unit is the amount of enzyme required to hydrolyze 1 μ mol of p-nitrophenylphosphate to p-nitrophenol in 1 min at 37°C in a buffer of 1 M diethanolamine, 10 mM p-nitrophenylophosphate, 0.25 mM MgCl₂ (pH 9.8) (2).

Storage Conditions:

Store at -20°C.

References:

1. Sambrook, J. et al. (1989) *Molecular cloning: A laboratory Manual, second edition*, pp.5.72, Cold Spring Harbor, New York.
2. Mosser, E., Boll, M. and Pfeleiderer, G. (1980) *Hoppe-Seyler's Z. Physiol. Chem.* 361, 543-549.

Calf intestine derived phosphatase which catalyzes the hydrolysis of phosphate monoesters.

Description:

- Has higher turnover rate and milder conditions of inactivation than bacterial enzyme (1).
- Can be used to remove 5'-phosphates from DNA or RNA prior to 5'-end labeling (1).
- Used to remove 5'-phosphates from linearized vector molecules to prevent self-ligation of the vector during cloning procedures (1).
- Applicable to dephosphorylation of proteins.

Storage Buffer:

10 mM Tris-HCl (pH 8.0 at 22°C), 50 mM KCl, 1 mM MgCl₂, 0.1 mM ZnCl₂ and 50% (v/v) glycerol.

Quality Control:

All preparations are assayed for contaminating endonuclease, nonspecific RNase and single- and double-stranded DNase activities.