

Alkaline Phosphatase (Calf Intestinal Phosphatase) (Molecular Biology Grade)

Description: Alkaline phosphatase molecular biology grade catalyzes the removal of 5'-phosphate groups from DNA, RNA and ribo- and deoxyribonucleoside triphosphates.

Unit Definition: One unit is defined as the amount of enzyme that hydrolyses 1 μ mole of p-nitrophenyl phosphate to p-nitrophenol in 1 minute at 37° C in a volume of 1 ml.

Assay buffer (1X) : 50 mM NaCl, 10 mM Tris-HCl (pH 7.9), 10 mM MgCl₂ and 1 mM DTT.

Buffer Supplied at **10X** concentration.

Storage buffer: 50 mM KCl, 10 mM Tris-HCl (pH 8.2), 1 mM MgCl₂, 0.1 mM ZnCl₂ and 50% glycerol.

Application: CIP is used to dephosphorylate vectors in cloning experiments to prevent vector self ligation and to prepare templates for 5' end labelling.

Performance Test: Dephosphorylation efficiency is evaluated.

Store at 4°C

Ordering Information:

Product	Size	Cat #
Alkaline Phosphatase	200 U	105930
(Calf intestinal)	1000 U	105929

Terminal Transferase

Description: The enzyme catalyzes a template-independent addition of dNTPs to the 3'-hydroxyl terminus of DNA molecules. Protruding, recessed or blunt ended double or single stranded DNA molecules serve as a substrate for TdT.

Unit Definition: One unit is the amount of enzyme catalyzing the incorporation of 1 nmol dATP into acid-precipitable material in one hour at 37°C in standard assay conditions in 1 ml reaction volume, using d(pT) as a template.

Application:

1. Addition of homopolymer tails to the 3' ends of DNA.
2. Labelling of 3'-ends of DNA

Assay buffer (1X): 50 mM Potassium acetate, 20 mM Tris acetate (pH 7.9), 10 mM Magnesium acetate, 1 mM DTT.

2.5 mM Cobalt chloride solution provided along with 10X Assay Buffer.

Storage buffer: 60 mM KPO₄ (pH 7.2), 150 mM KCl, 1 mM 2-mercaptoethanol, 0.5% Triton X-100 and 50% glycerol.

Store at : -20°C

Ordering Information:

Product	Size	Cat #
Terminal Transferase	100 U	105892