Creative Enzymes®

Recombinant TAB5 Alkaline Phosphatase

Cat. No. COV-011

Lot. No. (See product label)

Introduction

Description	Alkaline Phosphatase is derived from a recombinant E. coli strain that carries the TAB5 gene. The enzyme catalyzes the dephosphorylation of 5´ and 3´ ends of DNA and RNA phosphomonoesters. Also, it hydrolyses ribose, as well as deoxyribonucleoside triphosphates (NTPs and dNTPs). TAB5 Alkaline Phosphatase acts on 5´ protruding, 5´ recessed and blunt ends. The Phosphatase can be used in many molecular biology applications, such as cloning or probe end labeling to remove the phosphorylated ends of DNA or RNA. In cloning experiments, dephosphorylation prevents the linearized plasmid DNA from self-ligation. It can also degrade unincorporated dNTPs in PCR reactions to prepare a template for DNA sequencing. The enzyme is completely and irreversibly inactivated by heating at 70°C for 5 minutes, thereby making removal of the phosphatase prior to ligation or end labeling unnecessary.

Product Information

Source	E. coli
Form	Liquid
EC Number	EC 3.1.3.1
CAS No.	9001-78-9
Molecular Weight	35 kDa
Buffer	10 mM Tris-HCl (pH 7.4，25°C), 1 mM $MgCl_2$, 0.01 mM $ZnCl_2$, 50% glycerol.
Unit Definition	One unit is defined as the amount of enzyme that will dephosphorylate 1 µg of pUC19 vector DNA cut with HindIII (5´ protruding ends), HincII (blunts ends) or PstI (5´ recessed ends) in 30 minutes at 37°C. Dephosphorylation is defined as > 95% inhibition of recirculation in a self-ligation reaction and is measured by transformation into E.coli.

Storage and Shipping Information

Storage	at -20 °C (Avoid repeated freeze-thaw cycles)