Creative Enzymes®

Lambda Protein Phosphatase, Recombinant

Cat. No. NATE-0990

Lot. No. (See product label)

Introduction

Description	λ Protein Phosphatase (λ-PPase) is a Mn+2-dependent protein phosphatase with activity towards phosphorylated serine, threonine, tyrosine and histidine residues. It is the 221 amino-acid product of ORF221 open reading frame on bacteriophage lambda (1, 2). λ-PPase was expressed as a recombinant protein in E.coli and highly purified (2). This product is an intact enzyme of high quality without tag.
Applications	λ-PPase can be used to release phosphate groups from phosphorylated serine, threonine, tyrosine and histidine residues in proteins (2). It should be noted that different proteins are dephosphorylated at different rates. Optimal reaction temperature is 30°C. Inclusion of protease inhibitor cocktail and shortest incubation time is desired when assays are done with crude samples.
Synonyms	Protein phosphatase 1F; PPM1F; CAMKP; CaMKPase; FEM-2; POPX2; hFEM-2; Lambda Protein Phosphatase; λ-PPase

Product Information

Source	E. coli
Form	400 U/ul λ-PPase in 50mM HEPES (pH 7.5), 100mM NaCl, 2mM dithiothreitol, 0.1 mM MnCl2, 0.1mM EDTA, 50% glycerol, 0.01% Brij 35.
Purity	>98% by SDS-PAGE
Activity	400,000 U/mg (400 U/ul)
Unit Definition	One unit is defined as the amount of enzyme that hydrolyzes 1 nmole of p-nitrophenyl phosphate per minute at 30°C.

Storage and Shipping Information

Storage	Store at -80°C. Avoid repeating freeze-thaw cycles.