

Datasheet for ABIN2451908

**Lambda Protein Phosphatase****2** Images[Go to Product page](#)

## Overview

Quantity:	20000 U
Reactivity:	Mammalian
Host:	Escherichia coli (E. coli)

## Product Details

Specificity:	Release of phosphate groups from phosphorylated serine, threonine, tyrosine and histidine residues in proteins.
Characteristics:	This product is an intact enzyme of high quality without tag. Lambda Protein Phosphatase (Lambda -PPase) is a Mn <sup>2+</sup> -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. Lambda -PPase was expressed as a recombinant protein in E.coli and highly purified.
Purity:	> 95 % homogeneous protein determined by SDS-PAGE (CBB staining) that contains no detectable protease activity
Components:	10 x lambda -PPase Reaction Buffer [500m M Tris-HCl (pH 7.6), 1 M NaCl, 20 mM dithiothreitol, 1 mM EDTA, 0.1 % Brij 35] 10 x Mn <sup>2+</sup> (20 mM MnCl <sub>2</sub> )

## Target Details

UniProt: [P03772](#)

## Application Details

**Application Notes:** Lambda -PPase can be used to release phosphate groups from phosphorylated serine, threonine, tyrosine and histidine residues in proteins. 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.

**Comment:** Specific Activity: 400,000 U/mg  
One unit is defined as the amount of enzyme that hydrolyzes 1 nmole of p-nitrophenyl phosphate per minute at 30 °C. Unit definition assays are performed with 50 mM p-nitrophenyl phosphate in Lambda-PPase buffer, supplemented with 2 mM MnCl<sub>2</sub> in a 50

**Restrictions:** For Research Use only

## Handling

**Format:** Liquid

**Concentration:** 400 U/ µL

**Buffer:** 50 mM HEPES (pH 7.5), 100 mM NaCl, 2 mM dithiothreitol, 0.1 mM MnCl<sub>2</sub>, 0.1 mM EDTA, 50 % glycerol, 0.01 % Brij 35.

**Preservative:** Dithiothreitol (DTT)

**Precaution of Use:** This product contains Dithiothreitol (DTT): a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

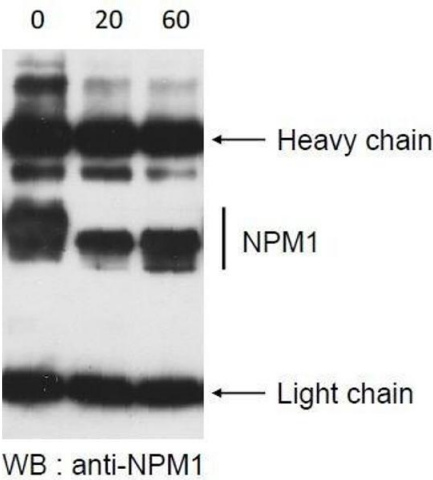
**Handling Advice:** Aliquote to avoid repeated freeze-thaw cycles.

**Storage:** -80 °C



SDS-PAGE

Image 1.



Western Blotting

Image 2.