

# Recombinant human Phosphoserine phosphatase/PSPH protein

Catalog Number: PSP0501

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-225aa

### UniProt No.

P78330

### NCBI Accession No.

NP\_004568.2

### Alternative Names

PSPH, Phosphoserine phosphatase Human, PSPase, PSP, EC 3.1.3.3, O-phosphoserine phosphohydrolase, L-3-phosphoserine phosphatase, Phosphoserine phosphatase, L 3 phosphoserine phosphatase, O phosphoserine phosphohydrolase, Phosphoserine phosphatase deficiency, included,

## PRODUCT SPECIFICATION

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### Molecular Weight

25 kDa (225aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM HEPES buffer (pH 7.4) containing 100mM KCl, 1mM DTT

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

Non-Tagged

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Human Phosphoserine phosphatase (hPSP) is an important enzyme in the phosphorylated pathway of serine biosynthesis, which contributes a major portion of the endogenous L-serine. Similar to known L-3-phosphoserine

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phosphatases, it catalyzed the Mg<sup>2+</sup> General references: -dependent hydrolysis of L-phosphoserine and an exchange reaction between L-serine and L-phosphoserine. Recently, its complex structures reveal that the open-closed environmental change of the active site, generated by local rearrangement of the alpha-helical bundle domain, is important to substrate recognition and hydrolysis. Recombinant human hPSP was overexpressed in E. coli and purified by conventional chromatography.

## Amino acid Sequence

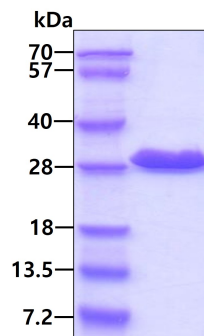
MVSHSELRKL FYSADAVCFD VDSTVIREEG IDELAKICGV EDAVSEMTRR AMGGAVPFKA ALTERLALIQ PSREQVQRLLI  
AEQPPHLTPG IRELVSRLLQE RNVQVFLISG GFRSIVEHVA SKLNIPATNV FANRLKFYFN GEYAGFDETQ PTAESGGKGGK  
VIKLLKEKFH FKKIIMIGDG ATDMEACPPA DAFIGFGGNV IRQQVKDNAK WYITDFVELL GELEE

## General References

Moro-Furlani., AM., et al. (1980) Ann. Hum. Genet. 43, 323-333  
Collet JF., et al. (1997) FEBS Lett. 408, 281-284  
Kim HY, et al. (2002) J Biol Chem. 277, 46651-8.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.