

Recombinant Full Length Human Phosphoserine Phosphatase / PSPH Protein, Untagged

Cat. No. PSPH-198H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Phosphoserine Phosphatase was overexpressed in <i>E. coli</i> and purified by conventional chromatography. MW = 25 kDa (225 aa).
Species	Human
Source	E.coli
Protein Length	1-225 a.a.
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 phosphatases, it catalyzed the Mg ²⁺ -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 -helical bundle domain, is important to substrate recognition and hydrolysis.
Form	Liquid. in 20 mM HEPES(pH 7.5) containing 1 mM DTT, 100 mM KCl2.
Purity	> 95% by SDS - PAGE.
Concentration	1 mg/ml (determined by Bradford assay).

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Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method).
Sequences Of Amino Acids	MVSHSELRLK FYSADAVCFD VDSTVIREEG IDELAKICGV EDAVSEMTRR AM G GA VPFKA ALTERLALIQ PSREQVQRLL AEQPPHLTPGIRELVSRLLQERNVQVF LI SG GFRSIVEHVA SKLNIPATNV FANRLKFYFN GEYAGFDETQ PTAESGGKKGK V I KLLKEKFH FKKIIMIGDGATDMEACPPA DAFIGFGGNV IRQQVKDNAK WY IT D F VELL GELEE.
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	PSPH phosphoserine phosphatase [Homo sapiens]
Synonyms	PSPH; phosphoserine phosphatase; PSP; PSPase; O-phosphoserine phosphohydrolase; L-3-phosphoserine phosphatase; EC 3.1.3.3
Gene ID	5723
mRNA Refseq	NM_004577
Protein Refseq	NP_004568
MIM	172480
UniProt ID	P78330
Chromosome Location	7p11.2

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Pathway Glycine, serine and threonine metabolism; Metabolic pathways

Function hydrolase activity; magnesium ion binding; phosphoserine phosphatase activity; protein binding

PDB rendering based on 1I8I.

