Recombinant human Phosphoserine phosphatase/PSPH protein

Catalog Number: PSP0501

PRODUCT INFORMATION

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

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

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 Mg2+ 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

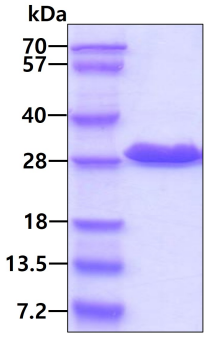
MVSHSELRKL FYSADAVCFD VDSTVIREEG IDELAKICGV EDAVSEMTRR AMGGAVPFKA ALTERLALIQ PSREQVQRLI AEQPPHLTPG IRELVSRLQE RNVQVFLISG GFRSIVEHVA SKLNIPATNV FANRLKFYFN GEYAGFDETQ PTAESGGKGK VIKLLKEKFH FKKIIMIGDG ATDMEACPPA DAFIGFGGNV IRQQVKDNAK WYITDFVELL GELEE

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.