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California Bioscience

Product Datasheet

Product Name	Phosphoserine Phosphatase Human Recombinant
Cata No	CB500830
Source	*Escherichia Coli.*
Synonyms	Phosphoserine phosphatase, EC 3.1.3.3, PSP, O-phosphoserine phosphohydrolase, PSPase, L-3-phosphoserine phosphatase, PSPH.

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 -helical bundle domain, is important to substrate by local rearrangement of the recognition and hydrolysis.

Phosphoserine Phosphatase Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 225 amino acids and having a molecular mass of 25 kDa.

PSP was overexpressed in E. coli and purified by conventional chromatography.

Physical Appearance

Sterile filtered colorless solution.

Purity

Greater than 95.0% as determined by:
(a)Analysis by RP-HPLC.
(b)Analysis by SDS-PAGE.

Formulation

The protein contains 20mM Hepes pH 7.5, 1mM DTT &100mM KCl_2.

Stability

Store at 4℃ if entire vial will be used within 2-4 weeks.
Store, frozen at -20℃ for longer periods of time.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Avoid multiple freeze-thaw cycles.

Sequence

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

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