

PSPH Human

Description: 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.

Catalog #: PKPS-231

Synonyms: Phosphoserine phosphatase, EC 3.1.3.3, PSP, O-phosphoserine phosphohydrolase, PSPase, L-3-phosphoserine phosphatase, PSPH.

For research use only.

Source: Escherichia coli.

Physical Appearance: Sterile filtered colorless solution.

Amino Acid Sequence: MVSHSELRLK FYSADAVCFD VDSTVIREEG IDELAKICGV
EDAVSEMTRR AMGGAVPFKA ALTERLALIQ PSREQVQRLL AEQPPHLTPG IRELVSRLLQE
RNVQVFLISG GFRSIVEHVA SKLNIPATNV FANRLKFYFN GEYAGFDETQ PTAESGGKGGK
VIKLLKEKFH FKKIIMIGDG ATDMEACPPA DAFIGFGGNV IRQVQKDNAK WYITDFVELL
GELEE.

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.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C 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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

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 catalyzes the Mg²⁺-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.

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