

Recombinant Human PSPH Protein

Catalog No. PKSH030616

Note: Centrifuge before opening to ensure complete recovery of vial contents.

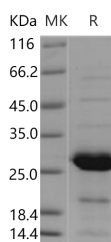
Description

Synonyms	Phosphoserine Phosphatase;PSP;PSPase;L-3-Phosphoserine Phosphatase;O-Phosphoserine Phosphohydrolase;PSPH
Species	Human
Expression Host	E.coli
Sequence	Met 1-Glu 225
Accession	P78330
Calculated Molecular Weight	25 kDa
Observed molecular weight	28 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 84 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 84 % as determined by reducing SDS-PAGE.

Background

Phosphoserine phosphatase (PSPH) belongs to a subfamily of the phosphotransferases. PSPH is the rate-limiting enzyme

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in l-serine biosynthesis. It has previously been found that Phosphoserine phosphatase (PSPH) plays a role in epidermal homeostasis. Phosphoserine phosphatase (PSP) catalyzes the hydrolysis of phosphoserine to serine. Phosphoserine phosphatase (PSPH) expression has been examined in human-mouse somatic cell hybrids retaining different combination of human chromosomes. Phosphoserine phosphatase (PSPH) is expressed throughout the proliferative layer of the epidermis and hair follicles in rodent and human skin and is highly induced in SCC. In keratinocytes; Phosphoserine phosphatase (PSPH) is a cytoplasmic protein that primarily localizes to endosomes and is present primarily as a homodimer. Knock down of Phosphoserine phosphatase (PSPH) dramatically diminished SCC cell proliferation and cyclin D1 levels in the presence of exogenous of l-serine production suggesting a non-canonical role for Phosphoserine phosphatase (PSPH) in epithelial carcinogenesis. Phosphoserine phosphatase (PSPH) is highly induced in proliferative normal keratinocytes and in skin tumors. Phosphoserine phosphatase (PSPH) appears to be critical for the proliferation of SCC cells; however; this phenomenon may not involve the phosphoserine metabolic pathway.