

PSPH Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP20207A

Product Information

Application WB, E Primary Accession P78330

Other Accession <u>Q5M819</u>, <u>Q99LS3</u>, <u>NP 004568.2</u>

Reactivity Human, Mouse

Predicted Rat
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB42215
Calculated MW 25008
Antigen Region 7-36

Additional Information

Gene ID 5723

Other Names Phosphoserine phosphatase, PSP, PSPase, L-3-phosphoserine phosphatase,

O-phosphoserine phosphohydrolase, PSPH

Target/Specificity This PSPH antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 7-36 amino acids from the N-terminal

region of human PSPH.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

Storage Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions PSPH Antibody (N-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

Protein Information

Name PSPH (HGNC:9577)

Function Catalyzes the last irreversible step in the biosynthesis of L-serine from

carbohydrates, the dephosphorylation of O-phospho-L- serine to L-serine

(PubMed:12213811, PubMed:14673469, PubMed:15291819, PubMed:25080166, PubMed:9222972). L-serine can then be used in protein synthesis, to produce other amino acids, in nucleotide metabolism or in glutathione synthesis, or can be racemized to D-serine, a neuromodulator (PubMed:14673469). May also act on O-phospho-D-serine (Probable).

Cellular Location

Cytoplasm, cytosol.

Background

The protein encoded by this gene belongs to a subfamily of the phosphotransferases. This encoded enzyme is responsible for the third and last step in L-serine formation. It catalyzes magnesium-dependent hydrolysis of L-phosphoserine and is also involved in an exchange reaction between L-serine and L-phosphoserine. Deficiency of this protein is thought to be linked to Williams syndrome.

References

Lamesch, P., et al. Genomics 89(3):307-315(2007)

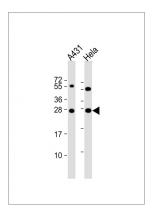
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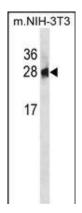
Veiga-da-Cunha, M., et al. Eur. J. Hum. Genet. 12(2):163-166(2004)

Peeraer, Y., et al. Acta Crystallogr. D Biol. Crystallogr. 59 (PT 6), 971-977 (2003):

Images



All lanes: Anti-PSPH Antibody (N-term) at 1:8000 dilution Lane 1: A431 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



PSPH Antibody (N-term) (Cat. #AP20207a) western blot analysis in mouse NIH-3T3 cell line lysates (35ug/lane). This demonstrates the PSPH antibody detected the PSPH protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.