

PSPH (I-19): sc-74827

BACKGROUND

Serine is an amino acid required for protein and nucleotide synthesis that may also be involved in cell to cell signaling. PSPH, also known as phosphoserine phosphatase or PSP, is a 225 amino acid Mg^{2+} -dependent enzyme that catalyzes the last and irreversible step in the biosynthesis of serine from carbohydrates, which is the hydrolysis of O-phosphoserine. In the embryonic brain, PSPH is highly expressed in periventricular neural progenitors where it may have a role in neural stem cell proliferation. A lack of PSPH in humans has been shown to cause pre- and postnatal growth retardation as well as moderate psychomotor retardation.

CHROMOSOMAL LOCATION

Genetic locus: PSPH (human) mapping to 7p11.2; PspH (mouse) mapping to 5 G1.3.

SOURCE

PSPH (I-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PSPH of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-74827 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

PSPH (I-19) is recommended for detection of PSPH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PSPH (I-19) is also recommended for detection of PSPH in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PSPH siRNA (h): sc-76125, PSPH siRNA (m): sc-76126, PSPH shRNA Plasmid (h): sc-76125-SH, PSPH shRNA Plasmid (m): sc-76126-SH, PSPH shRNA (h) Lentiviral Particles: sc-76125-V and PSPH shRNA (m) Lentiviral Particles: sc-76126-V.

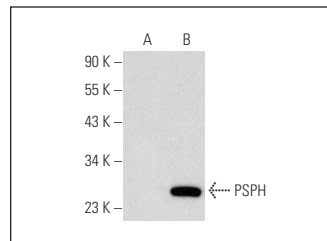
Molecular Weight of PSPH: 25 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, PSPH (m): 293T Lysate: sc-122827 or K-562 whole cell lysate: sc-2203.

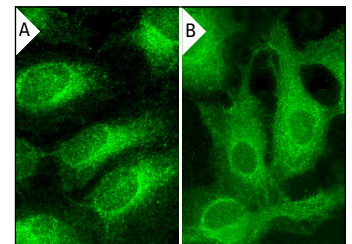
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PSPH (I-19): sc-74827. Western blot analysis of PSPH expression in non-transfected: sc-117752 (A) and mouse PSPH transfected: sc-122827 (B) 293T whole cell lysates.



PSPH (I-19): sc-74827. Immunofluorescence staining of formalin-fixed HeLa cells showing cytoplasmic localization (A). Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic localization (B).

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **PSPH (H-10): sc-271421** or **PSPH (H-11): sc-365183**, our highly recommended monoclonal alternatives to PSPH (I-19).