

SEPHS1 (H-65): sc-135401

BACKGROUND

SEPHS1 (selenophosphate synthetase 1), also known as SELD, SPS or SPS1, is a 392 amino acid member of the selenophosphate synthetase 1 family and is one of 2 mammalian homologs of the eubacteria selenophosphate synthetase protein SelD. SelD is an enzyme that generates the selenium donor for the biosynthesis of selenocysteine, an amino acid that is co-translationally incorporated into selenoproteins at in-frame UGA codons. SEPHS1 has a similar function to SelD and specifically catalyzes the formation of selenophosphate (the active selenium donor) from selenide, ATP and H₂O. Proper SEPHS1 function depends on a selenium salvage system that recycles L-selenocysteine, thereby providing the substrates for selenophosphate synthesis.

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CHROMOSOMAL LOCATION

Genetic locus: SEPHS1 (human) mapping to 10p13; Sephs1 (mouse) mapping to 2 A1.

SOURCE

SEPHS1 (H-65) is a rabbit polyclonal antibody raised against amino acids 1-65 mapping at the N-terminus of SEPHS1 of human origin.

PRODUCT

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

APPLICATIONS

SEPHS1 (H-65) is recommended for detection of SEPHS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

SEPHS1 (H-65) is also recommended for detection of SEPHS1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for SEPHS1 siRNA (h): sc-90338, SEPHS1 siRNA (m): sc-153337, SEPHS1 shRNA Plasmid (h): sc-90338-SH, SEPHS1 shRNA Plasmid (m): sc-153337-SH, SEPHS1 shRNA (h) Lentiviral Particles: sc-90338-V and SEPHS1 shRNA (m) Lentiviral Particles: sc-153337-V.

Molecular Weight of SEPHS1: 43 kDa.

Positive Controls: mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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