

PSKH1 (D-13): sc-165301

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. PSKH1 (protein serine kinase H1) is a 424 amino acid protein that localizes to a variety of places within the cell, including the Golgi apparatus, nuclear speckles, centrosomes and the membrane of the endoplasmic reticulum. Expressed ubiquitously, PSKH1 belongs to the Ser/Thr protein kinase family and functions as a splicing factor compartment-associated serine kinase that is thought to play a role in mRNA processing and SR (serine/arginine) protein trafficking events. PSKH1 contains one protein kinase domain and exists as a homodimer that is subject to autophosphorylation on specific serine residues.

REFERENCES

- Hanks, S.K. 1987. Homology probing: identification of cDNA clones encoding members of the protein-serine kinase family. *Proc. Natl. Acad. Sci. USA* 84: 388-392.
- Larsen, F., Solheim, J., Kristensen, T., Kolsto, A.B. and Prydz, H. 1993. A tight cluster of five unrelated human genes on chromosome 16q22.1. *Hum. Mol. Genet.* 2: 1589-1595.
- Brede, G., Solheim, J., Tröen, G. and Prydz, H. 2000. Characterization of PSKH1, a novel human protein serine kinase with centrosomal, Golgi, and nuclear localization. *Genomics* 70: 82-92.
- Amarzguoui, M., Brede, G., Babaie, E., Grotli, M., Sproat, B. and Prydz, H. 2000. Secondary structure prediction and *in vitro* accessibility of mRNA as tools in the selection of target sites for ribozymes. *Nucleic Acids Res.* 28: 4113-4124.
- Pilch, B., Allemand, E., Facompre, M., Bailly, C., Riou, J.F., Soret, J. and Tazi, J. 2001. Specific inhibition of serine- and arginine-rich splicing factors phosphorylation, spliceosome assembly, and splicing by the antitumor drug NB-506. *Cancer Res.* 61: 6876-6884.
- Brede, G., Solheim, J. and Prydz, H. 2002. PSKH1, a novel splice factor compartment-associated serine kinase. *Nucleic Acids Res.* 30: 5301-5309.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 177015. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Brede, G., Solheim, J., Stang, E. and Prydz, H. 2003. Mutants of the protein serine kinase PSKH1 disassemble the Golgi apparatus. *Exp. Cell Res.* 291: 299-312.

CHROMOSOMAL LOCATION

Genetic locus: PSKH1 (human) mapping to 16q22.1; Pskh1 (mouse) mapping to 8 D3.

STORAGE

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

SOURCE

PSKH1 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSKH1 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.

Blocking peptide available for competition studies, sc-165301 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSKH1 (D-13) is recommended for detection of PSKH1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with PSKH2.

Suitable for use as control antibody for PSKH1 siRNA (h): sc-93066, PSKH1 siRNA (m): sc-152554, PSKH1 shRNA Plasmid (h): sc-93066-SH, PSKH1 shRNA Plasmid (m): sc-152554-SH, PSKH1 shRNA (h) Lentiviral Particles: sc-93066-V and PSKH1 shRNA (m) Lentiviral Particles: sc-152554-V.

Molecular Weight of PSKH1: 48 kDa.

Positive Controls: mouse lung extract: sc-2390.

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) 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.

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.