

PSKH2 (C-12): sc-87373

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. PSKH2 (protein serine kinase H2) is a 385 amino acid protein belonging to the CAMK Ser/Thr protein kinase family. Containing one protein kinase domain, PSKH2 is encoded by a gene located on human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

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.
- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. Am. J. Med. Genet. 88: 239-243.
- Brede, G., et al. 2000. Characterization of PSKH1, a novel human protein serine kinase with centrosomal, Golgi, and nuclear localization. Genomics 70: 82-92.
- Amarzguioui, M., et al. 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., et al. 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., et al. 2002. PSKH1, a novel splice factor compartment-associated serine kinase. Nucleic Acids Res. 30: 5301-5309.
- Brede, G., et al. 2003. Mutants of the protein serine kinase PSKH1 disassemble the Golgi apparatus. Exp. Cell Res. 291: 299-312.
- McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. Am. J. Hum. Genet. 77: 582-595.
- Nusbaum, C., et al. 2006. DNA sequence and analysis of human chromosome 8. Nature 439: 331-335.

CHROMOSOMAL LOCATION

Genetic locus: PSKH2 (human) mapping to 8q21.2.

SOURCE

PSKH2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PSKH2 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-87373 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSKH2 (C-12) is recommended for detection of PSKH2 of 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).

Suitable for use as control antibody for PSKH2 siRNA (h): sc-77653, PSKH2 shRNA Plasmid (h): sc-77653-SH and PSKH2 shRNA (h) Lentiviral Particles: sc-77653-V.

Molecular Weight of PSKH2: 43 kDa.

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.

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.