HSMNP1 (E-14): sc-85482



The Power to Question

BACKGROUND

HSMNP1 (hypothalamus protein 1), also known as DBNDD2 (Dysbindin domain-containing protein 2) or CK1BP (casein kinase I binding protein), is a 261 amino acid member of the Dysbindin family and is a paralog of Dysbindin, a protein trafficking protein involved in lysosome biosynthesis that has been associated with schizophrenia and muscular dystrophy. Human and rat HSMNP1 share 86% identity and both proteins contain three casein kinase II and PKC (protein kinase C) phosphorylation sites, a putative N-glycosylation site and a PEST motif at the C-terminus. HSMNP1 is a cytoplasmic protein and it specifically localizes to vesicles during the induction of apoptosis. In addition, HSMNP1 may be involved in normal as well as pathological myeloid development. Two isoforms of HSMNP1 exist due to alternative splicing events.

REFERENCES

- Benson, M.A., Newey, S.E., Martin-Rendon, E., Hawkes, R. and Blake, D.J. 2001. Dysbindin, a novel coiled-coil-containing protein that interacts with the dystrobrevins in muscle and brain. J. Biol. Chem. 276: 24232-24241.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611453: World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 3. Talbot, K., Eidem, W.L., Tinsley, C.L., Benson, M.A., Thompson, E.W., Smith, R.J., Hahn, C.G., Siegel, S.J., Trojanowski, J.Q., Gur, R.E., Blake, D.J. and Arnold, S.E. 2004. Dysbindin-1 is reduced in intrinsic, glutamatergic terminals of the hippocampal formation in schizophrenia. J. Clin. Invest. 113: 1353-1363.
- 4. Lucas, T., Pratscher, B., Fink, D., Wolschek, M., Samorapoompichit, P., Schöfer, C., Pehamberger, H., Müller, M., Sorensen, P. and Jansen, B. 2005. The human orthologue of a novel apoptosis response gene induced during rat myelomonocytic stem cell apoptosis maps to 20q13.12. Stem Cells Dev. 14: 556-563.
- Yin, H., Laguna, K.A., Li, G. and Kuret, J. 2006. Dysbindin structural homologue CK1BP is an isoform-selective binding partner of human casein kinase-1. Biochemistry 45: 5297-5308.
- Pratscher, B., Friedrich, C., Goger, W., Allen, M., Fink, D., Thallinger, C., Wolschek, M., Frei, K., Schöfer, C., Pehamberger, H., Wacheck, V., Sorensen, P.H., Müller, M., Jansen, B. and Lucas, T. 2008. Characterization of NKIP: A novel, Na+/K+-ATPase interacting protein mediates neural differentiation and apoptosis. Exp. Cell Res. 314: 463-477.

CHROMOSOMAL LOCATION

Genetic locus: DBNDD2 (human) mapping to 20q13.12; Dbndd2 (mouse) mapping to 2 H3.

SOURCE

HSMNP1 (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of HSMNP1 of human origin.

PRODUCT

Each vial contains 100 μg IgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85482 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HSMNP1 (E-14) is recommended for detection of HSMNP1 of mouse, rat 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).

Suitable for use as control antibody for HSMNP1 siRNA (h): sc-72046, HSMNP1 siRNA (m): sc-72912, HSMNP1 shRNA Plasmid (h): sc-72046-SH, HSMNP1 shRNA Plasmid (m): sc-72912-SH, HSMNP1 shRNA (h) Lentiviral Particles: sc-72046-V and HSMNP1 shRNA (m) Lentiviral Particles: sc-72912-V.

Molecular Weight of HSMNP1: 28 kDa.

Positive Controls: rat pituitary tissue extract.

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) 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com