

HSMNP1 (C-9): sc-514709

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

1. Benson, M.A., et al. 2001. Dysbindin, a novel coiled-coil-containing protein that interacts with the dystrobrevins in muscle and brain. *J. Biol. Chem.* 276: 24232-24241.
2. 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., et al. 2004. Dysbindin-1 is reduced in intrinsic, glutamatergic terminals of the hippocampal formation in schizophrenia. *J. Clin. Invest.* 113: 1353-1363.

CHROMOSOMAL LOCATION

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

SOURCE

HSMNP1 (C-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 135-156 within an internal region of HSMNP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HSMNP1 (C-9) is available conjugated to agarose (sc-514709 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514709 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514709 PE), fluorescein (sc-514709 FITC), Alexa Fluor® 488 (sc-514709 AF488), Alexa Fluor® 546 (sc-514709 AF546), Alexa Fluor® 594 (sc-514709 AF594) or Alexa Fluor® 647 (sc-514709 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514709 AF680) or Alexa Fluor® 790 (sc-514709 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514709 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

HSMNP1 (C-9) is recommended for detection of HSMNP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

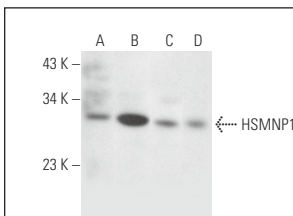
Positive Controls: H4 cell lysate: sc-2408, SK-N-MC cell lysate: sc-2237 or BC₃H1 cell lysate: sc-2299.

RECOMMENDED SUPPORT REAGENTS

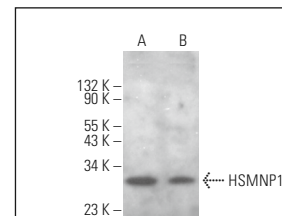
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HSMNP1 (C-9): sc-514709. Western blot analysis of HSMNP1 expression in H4 (A), SK-N-MC (B), T98G (C) and SH-SY5Y (D) whole cell lysates.



HSMNP1 (C-9): sc-514709. Western blot analysis of HSMNP1 expression in AtT-20/D16V-F2 (A) and BC₃H1 (B) whole cell lysates.

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 for detailed protocols and support products.