

Nap-22 (H-100): sc-66994

BACKGROUND

Neuronal axonal membrane protein Nap-22, also designated neuronal tissue-enriched acidic protein or brain acid soluble protein (BASP1), is a Ca²⁺-dependent calmodulin-binding protein that is important for neuronal sprouting and plasticity. Nap-22 is abundant in brain nerve terminals and is also present in significant amounts in kidney, testis and lymphoid tissue. Nap-22 undergoes N-terminal myristoylation for membrane localization. It has been characterized as a major protein of neuronal rafts, which are known to preferentially bind membranes containing cholesterol. Nap-22 is a crucial protein active in neurite outgrowth and synaptic plasticity.

REFERENCES

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2. Park, S., et al. 1998. Characterization of bovine and human cDNAs encoding Nap-22 (22 kDa neuronal tissue-enriched acidic protein) homologs. *Mol. Cell* 8: 471-477.
3. Zakharov, VV., et al. 2003. Natural N-terminal fragments of brain abundant myristoylated protein BASP1. *Biochim. Biophys. Acta* 1622: 14-19.
4. Epanand, R.M., et al. 2004. Cholesterol-dependent partitioning of PtdIns(4,5)P₂ into membrane domains by the N-terminal fragment of Nap-22 (neuronal axonal myristoylated membrane protein of 22 kDa). *Biochem. J.* 379: 527-532.
5. Iino, S., et al. 2004. Motor, sensory and autonomic nerve terminals containing Nap-22 immunoreactivity in the rat muscle. *Brain Res.* 1002: 142-150.
6. Epanand, R.F., et al. 2005. Induction of raft-like domains by a myristoylated Nap-22 peptide and its Tyr mutant. *FEBS J.* 272: 1792-1803.
7. Mosevitsky, M.I. 2005. Nerve ending "signal" proteins GAP-43, MARCKS and BASP1. *Int. Rev. Cytol.* 245: 245-325.
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CHROMOSOMAL LOCATION

Genetic locus: BASP1 (human) mapping to 5p15.1.

SOURCE

Nap-22 (H-100) is a rabbit polyclonal antibody raised against amino acids 128-227 mapping at the C-terminus of Nap-22 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Nap-22 (H-100) is recommended for detection of Nap-22 of 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).

Suitable for use as control antibody for Nap-22 siRNA (h): sc-44610, Nap-22 shRNA Plasmid (h): sc-44610-SH and Nap-22 shRNA (h) Lentiviral Particles: sc-44610-V.

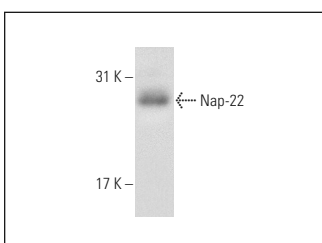
Molecular Weight of Nap-22: 22 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

DATA



Nap-22 (H-100): sc-66994. Western blot analysis of Nap-22 expression in HeLa whole cell lysate.

STORAGE

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

PROTOCOLS

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