

Neuron navigator 1 (H-200): sc-135320

BACKGROUND

Neuron navigator 1, also known as Unc-53 homolog 1, Steerin-1 and POMFIL3 (pore membrane and/or filament-interacting-like protein 3), is a 1,877 amino acid cytoplasmic protein that is involved in neuronal migration. Neuron navigator 1 is widely expressed at low levels, though highest expression is found in both adult and fetal nervous tissue. Through interaction with tubulin, Neuron navigator 1 associates with a subset of microtubule plus ends present in the growth cone. Overexpression of Neuron navigator 1 leads to microtubule bundling, whereas a reduction of its levels causes loss of directionality in the migration of pontine cell leading processes. There are seven isoforms of Neuron navigator 1 that are produced as a result of alternative splicing events.

REFERENCES

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2. Coy, J.F., et al. 2002. Pore membrane and/or filament interacting like protein 1 (POMFIL1) is predominantly expressed in the nervous system and encodes different protein isoforms. *Gene* 290: 73-94.
3. Maes, T., et al. 2002. Neuron navigator: a human gene family with homology to unc-53, a cell guidance gene from *Caenorhabditis elegans*. *Genomics* 80: 21-30.
4. Peeters, P.J., et al. 2004. Sensory deficits in mice hypomorphic for a mammalian homologue of unc-53. *Brain Res. Dev. Brain Res.* 150: 89-101.
5. Martínez-López, M.J., et al. 2005. Mouse Neuron navigator 1, a novel microtubule-associated protein involved in neuronal migration. *Mol. Cell. Neurosci.* 28: 599-612.
6. Muley, P.D., et al. 2008. The atRA-responsive gene Neuron navigator 2 functions in neurite outgrowth and axonal elongation. *Dev. Neurobiol.* 68: 1441-1453.
7. McNeill, E.M., et al. 2010. Nav2 is necessary for cranial nerve development and blood pressure regulation. *Neural Dev.* 5: 6.

CHROMOSOMAL LOCATION

Genetic locus: NAV1 (human) mapping to 1q32.1; Nav1 (mouse) mapping to 1 E4.

SOURCE

Neuron navigator 1 (H-200) is a rabbit polyclonal antibody raised against amino acids 741-940 mapping within an internal region of Neuron navigator 1 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.

STORAGE

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

APPLICATIONS

Neuron navigator 1 (H-200) is recommended for detection of Neuron navigator 1 of mouse, rat and 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 Neuron navigator 1 siRNA (h): sc-88753, Neuron navigator 1 siRNA (m): sc-149934, Neuron navigator 1 shRNA Plasmid (h): sc-88753-SH, Neuron navigator 1 shRNA Plasmid (m): sc-149934-SH, Neuron navigator 1 shRNA (h) Lentiviral Particles: sc-88753-V and Neuron navigator 1 shRNA (m) Lentiviral Particles: sc-149934-V.

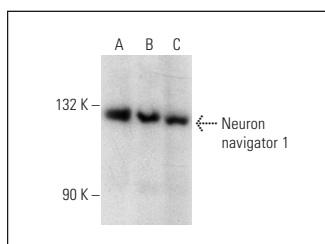
Molecular Weight of Neuron navigator 1: 203 kDa.

Positive Controls: human skeletal muscle extract: sc-363776, HeLa whole cell lysate: sc-2200 or HT-1080 whole cell lysate: sc-364183.

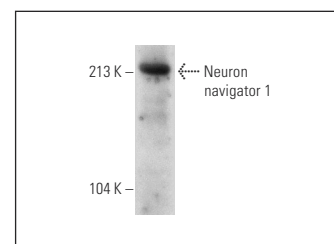
RECOMMENDED SECONDARY REAGENTS

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



Neuron navigator 1 (H-200): sc-135320. Western blot analysis of Neuron navigator 1 expression in OV-90 (A), HeLa (B) and HT-1080 (C) whole cell lysates.



Neuron navigator 1 (H-200): sc-135320. Western blot analysis of Neuron navigator 1 expression in human skeletal muscle tissue extract.

RESEARCH USE

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



Try **Neuron navigator 1 (G-12): sc-398641**, our highly recommended monoclonal alternative to Neuron navigator 1 (H-200).