

Neuron navigator 1 (G-12): sc-398641

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.

CHROMOSOMAL LOCATION

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

SOURCE

Neuron navigator 1 (G-12) is a mouse monoclonal 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neuron navigator 1 (G-12) is available conjugated to agarose (sc-398641 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398641 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398641 PE), fluorescein (sc-398641 FITC), Alexa Fluor® 488 (sc-398641 AF488), Alexa Fluor® 546 (sc-398641 AF546), Alexa Fluor® 594 (sc-398641 AF594) or Alexa Fluor® 647 (sc-398641 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398641 AF680) or Alexa Fluor® 790 (sc-398641 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Neuron navigator 1 (G-12) is recommended for detection of Neuron navigator 1 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 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.

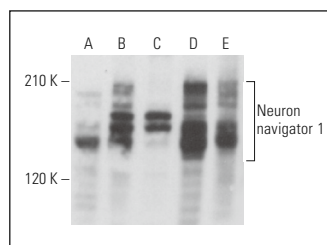
Molecular Weight of Neuron navigator 1: 203 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or RAW 264.7 whole cell lysate: sc-2211.

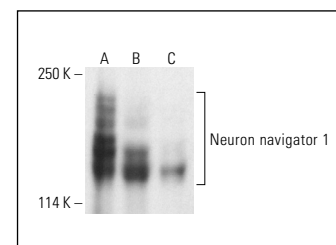
RECOMMENDED SUPPORT REAGENTS

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



Neuron navigator 1 (G-12): sc-398641. Western blot analysis of Neuron navigator 1 expression in HeLa (A), HT-1080 (B), JAR (C), RAW 264.7 (D) and A-10 (E) whole cell lysates.



Neuron navigator 1 (G-12): sc-398641. Western blot analysis of Neuron navigator 1 expression in HT-1080 (A), JAR (B) and RAW 264.7 (C) whole cell lysates. Detection reagent used: m-IgG_{2a} BP-HRP: sc-542731.

SELECT PRODUCT CITATIONS

- Lu, F., et al. 2018. Hypoxia-ischemia modifies postsynaptic GluN2B-containing NMDA receptor complexes in the neonatal mouse brain. *Exp. Neurol.* 299: 65-74.
- Sánchez-Huertas, C., et al. 2020. The +TIP Navigator-1 is an Actin-microtubule crosslinker that regulates axonal growth cone motility. *J. Cell Biol.* 219: e201905199.

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.