

Ninjurin-2 (E-20): sc-79650

BACKGROUND

Ninjurin family proteins are multi-pass membrane proteins induced by nerve injury in Schwann cells and dorsal root ganglion neurons. Ninjurin proteins act as homophilic cell adhesion molecules that promote axonal growth. Ninjurin proteins also play a role in the formation and function of other tissues. Ninjurin-1 is widely expressed in adult and embryonic tissues, particularly those with epithelial origin. Ninjurin-2 is also widely expressed, with highest levels in adult bone marrow and peripheral blood lymphocytes and embryo liver, thymus and heart. The genes that encode the Ninjurin proteins map to a region known to cause several genetic disorders, including hereditary sensory neuropathy type I and type II (HSN1 and HSN2). However, no link between mutations in the genes encoding Ninjurins and the diseases have been found.

REFERENCES

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3. Chadwick, B.P., et al. 1998. The human homologue of the Ninjurin gene maps to the candidate region of hereditary sensory neuropathy type I (HSNI). *Genomics* 47: 58-63.
4. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 602062. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Araki, T. and Milbrandt, J. 2000. Ninjurin-2, a novel homophilic adhesion molecule, is expressed in mature sensory and enteric neurons and promotes neurite outgrowth. *J. Neurosci.* 20: 187-195.
6. Toyama, T., et al. 2004. Ninjurin-1 increases p21 expression and induces cellular senescence in human hepatoma cells. *J. Hepatol.* 41: 637-643.
7. Cardoso, C.C., et al. 2007. Ninjurin-1 ASP110Ala single nucleotide polymorphism is associated with protection in leprosy nerve damage. *J. Neuroimmunol.* 190: 131-138.
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CHROMOSOMAL LOCATION

Genetic locus: NINJ2 (human) mapping to 12p13.33.

SOURCE

Ninjurin-2 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ninjurin-2 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.

Blocking peptide available for competition studies, sc-79650 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ninjurin-2 (E-20) is recommended for detection of Ninjurin-2 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 Ninjurin-2 siRNA (h): sc-75917, Ninjurin-2 shRNA Plasmid (h): sc-75917-SH and Ninjurin-2 shRNA (h) Lentiviral Particles: sc-75917-V.

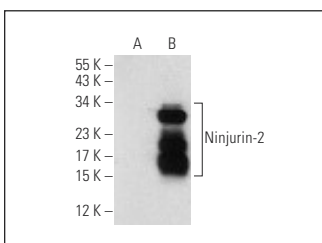
Molecular Weight of Ninjurin-2: 20 kDa.

Positive Controls: Ninjurin-2 (h2): 293T Lysate: sc-176581.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Ninjurin-2 (E-20): sc-79650. Western blot analysis of Ninjurin-2 expression in non-transfected: sc-117752 (A) and human Ninjurin-2 transfected: sc-176581 (B) 293T 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 or our catalog for detailed protocols and support products.