

NUMB (N-20): sc-15588

BACKGROUND

Neuronal cell fate decisions are directed in *Drosophila* by NUMB, a signaling adapter protein with two protein-protein interaction domains: a phosphotyrosine-binding domain and a proline-rich SH3-binding region (PRR). Mammalian NUMB homologs play a role in the determination of cell fates during development and bind with Eps15, LNX1 and Notch 1. Conditional mouse mutants with deletion of NUMB in developing sensory ganglia show a reduction in axonal arborization in afferent fibers. Changes in cellular calcium homeostasis influences NUMB-dependent cell fate decisions during development of the nervous system. Chicken NUMB (c-NUMB) protein is localized to the basal cortex of mitotic neuroepithelial cells.

REFERENCES

- Spana, E.P., et al. 1995. Asymmetric localization of NUMB autonomously determines sibling neuron identity in the *Drosophila* CNS. *Development* 121: 3489-3494.
- Spana, E.P., et al. 1996. NUMB antagonizes Notch signaling to specify sibling neuron cell fates. *Neuron* 17: 21-26.

CHROMOSOMAL LOCATION

Genetic locus: NUMB (human) mapping to 14q24.2; Numb (mouse) mapping to 12 D1.

SOURCE

NUMB (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NUMB 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-15588 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NUMB (N-20) is recommended for detection of NUMB 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 NUMB siRNA (h): sc-42146, NUMB siRNA (m): sc-42147, NUMB shRNA Plasmid (h): sc-42146-SH, NUMB shRNA Plasmid (m): sc-42147-SH, NUMB shRNA (h) Lentiviral Particles: sc-42146-V and NUMB shRNA (m) Lentiviral Particles: sc-42147-V.

Molecular Weight (predicted) of NUMB isoforms: 65/66/71/72 kDa.

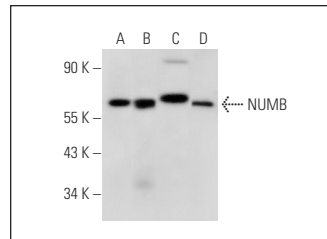
Molecular Weight (observed) of NUMB: 78 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HEK293 whole cell lysate: sc-45136 or NIH/3T3 whole cell lysate: sc-2210.

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



NUMB (N-20): sc-15588. Western blot analysis of NUMB expression in HEK293 (A), HeLa (B) and NIH/3T3 (C) whole cell lysates and mouse lung tissue extract (D).

SELECT PRODUCT CITATIONS

- Luty, W.H., et al. 2007. Antiparallel segregation of Notch components in the immunological synapse directs reciprocal signaling in allogeneic Th:DC conjugates. *J. Immunol.* 179: 819-829.

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.


 MONOS
Satisfaction
Guaranteed

Try **NUMB (48): sc-136554**, our highly recommended monoclonal alternative to NUMB (N-20).