

NrCAM (C-16): sc-18960

BACKGROUND

Neuronal cell adhesion molecule (NrCAM) is a cell surface protein of the immunoglobulin (Ig) superfamily. NrCAM (also known as Bravo) contains six Ig domains, five Fibronectin repeats, a transmembrane region and an intracellular domain. NrCAM is expressed in brain, spinal cord, peripheral nervous system and pancreas. In the spinal cord, NrCAM acts as a ligand for Axonin-1 to guide commissural axons across the floor plate. NrCAM also acts as a ligand for F3 to control Actin-dependent growth cone motility. NrCAM interacts with Neurofascin and may facilitate the clustering of the cytoskeletal protein Ankyrin G and the voltage-dependent sodium channel proteins at the node of Ranvier. NrCAM expression may play a role in the severity of certain types of tumors. NrCAM is overexpressed in high-grade astrocytomas, gliomas and glioblastoma tumor tissues. In the pancreas, NrCAM expression is upregulated in intraductal hyperplasia. Antisense NrCAM reduces the tumorigenic properties of human glioblastoma cells *in vitro* and slowed tumor growth *in vivo*. The gene encoding human NrCAM maps to chromosome 7q31.1.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NRCAM (human) mapping to 7q31.1; Nrcam (mouse) mapping to 12 B3.

SOURCE

NrCAM (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NrCAM 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-18960 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NrCAM (C-16) is recommended for detection of NrCAM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NrCAM (C-16) is also recommended for detection of NrCAM in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NrCAM siRNA (h): sc-43174, NrCAM siRNA (m): sc-43175, NrCAM shRNA Plasmid (h): sc-43174-SH, NrCAM shRNA Plasmid (m): sc-43175-SH, NrCAM shRNA (h) Lentiviral Particles: sc-43174-V and NrCAM shRNA (m) Lentiviral Particles: sc-43175-V.

Molecular Weight of NrCAM isoforms 1/2/3: 144/137/131 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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) 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.

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.