

NRAGE (F-9): sc-393291

BACKGROUND

The neurotrophin family of growth factors (NGF) function to regulate neuronal differentiation, synaptic activity and neuronal survival, as well as axonal and dendritic growth. The melanoma-associated antigen (MAGE) family consists of a number of antigens recognized by cytotoxic T lymphocytes. Neurotrophin receptor-interacting MAGE homolog (NRAGE) binds the p75 neurotrophin receptor and associates with the plasma membrane when NGF binds p75NTR. The critical factors for NRAGE association lie within the juxtamembrane domain of p75NTR. Overexpression of NRAGE stimulates cell cycle arrest and allows NGF-dependent apoptosis within sympathetic neuron precursors cells. NRAGE is expressed in the medulla oblongata during development and motor-neurons. Structural similarities suggest NRAGE, and the MAGE protein necdin, (Ndn), mediate cell cycle effects through a shared mechanism.

REFERENCES

1. Farinas, I. 1999. Neurotrophin actions during the development of the peripheral nervous system. *Microsc. Res. Tech.* 45: 233-242.
2. McAllister, A.K., et al. 1999. Neurotrophins and synaptic plasticity. *Annu. Rev. Neurosci.* 22: 295-318.
3. Okami, J., et al. 2000. Genetic detection for micrometastasis in lymph node of biliary tract carcinoma. *Clin. Cancer Res.* 6: 2326-2332.

CHROMOSOMAL LOCATION

Genetic locus: MAGED1 (human) mapping to Xp11.22; Maged1 (mouse) mapping to X C3.

SOURCE

NRAGE (F-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 28-57 near the N-terminus of NRAGE of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NRAGE (F-9) is available conjugated to agarose (sc-393291 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393291 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393291 PE), fluorescein (sc-393291 FITC), Alexa Fluor® 488 (sc-393291 AF488), Alexa Fluor® 546 (sc-393291 AF546), Alexa Fluor® 594 (sc-393291 AF594) or Alexa Fluor® 647 (sc-393291 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393291 AF680) or Alexa Fluor® 790 (sc-393291 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393291 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

NRAGE (F-9) is recommended for detection of NRAGE 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).

NRAGE (F-9) is also recommended for detection of NRAGE in additional species, including canine and porcine.

Suitable for use as control antibody for NRAGE siRNA (h): sc-37320, NRAGE siRNA (m): sc-45975, NRAGE shRNA Plasmid (h): sc-37320-SH, NRAGE shRNA Plasmid (m): sc-45975-SH, NRAGE shRNA (h) Lentiviral Particles: sc-37320-V and NRAGE shRNA (m) Lentiviral Particles: sc-45975-V.

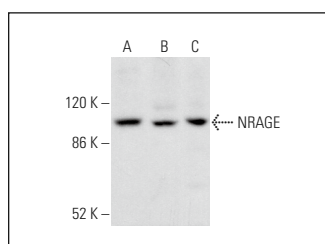
Molecular Weight of NRAGE: 97 kDa.

Positive Controls: NRAGE (m): 293T Lysate: sc-122121, Neuro-2A whole cell lysate: sc-364185 or U-87 MG cell lysate: sc-2411.

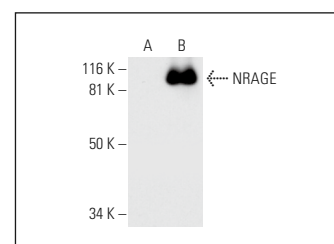
RECOMMENDED SUPPORT REAGENTS

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



NRAGE (F-9): sc-393291. Western blot analysis of NRAGE expression in U-87 MG (A), A-10 (B) and Neuro-2A (C) whole cell lysates.



NRAGE (F-9): sc-393291. Western blot analysis of NRAGE expression in non-transfected: sc-117752 (A) and mouse NRAGE transfected: sc-122121 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mattenberger, F., et al. 2021. Globally defining the effects of mutations in a picornavirus capsid. *Elife* 10: e64256.

STORAGE

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