SANTA CRUZ BIOTECHNOLOGY, INC.

Neurotrimin (F-9): sc-390941

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cell adhesion molecules (CAMs) influence cell growth, differentiation, embryogenesis, immune response and cancer metastasis by networking information from the extracellular matrix to the cell. The four major families of cell adhesion molecules are immunoglobulin (Ig) superfamily (calcium-independent transmembrane glycoproteins), integrins (transmembrane non-covalently linked heterodimers of α and β subunits), calcium-dependent cadherins and divalent cation-dependent selectins. Regulation of neuronal synaptic adhesion by CAMs has proven important for learning and memory. Proper embryonic morphogenic development is also heavily dependent on the regulation of cell adhesion molecules. Neurotrimin (hNT) is a neural cell adhesion molecule localizing to the cell membrane, where it acts as a lipid-anchor. Neurotrimin belongs to the IgLON family of proteins, a member of the larger immunoglobulin superfamily.

CHROMOSOMAL LOCATION

Genetic locus: NTM (human) mapping to 11q25; Ntm (mouse) mapping to 9 A4.

SOURCE

Neurotrimin (F-9) is a mouse monoclonal antibody raised against amino acids 251-290 mapping near the C-terminus of Neurotrimin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neurotrimin (F-9) is available conjugated to agarose (sc-390941 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390941 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390941 PE), fluorescein (sc-390941 FITC), Alexa Fluor® 488 (sc-390941 AF488), Alexa Fluor® 546 (sc-390941 AF546), Alexa Fluor® 594 (sc-390941 AF594) or Alexa Fluor® 647 (sc-390941 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390941 AF680) or Alexa Fluor® 790 (sc-390941 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

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

Suitable for use as control antibody for Neurotrimin siRNA (h): sc-61191, Neurotrimin siRNA (m): sc-61192, Neurotrimin shRNA Plasmid (h): sc-61191-SH, Neurotrimin shRNA Plasmid (m): sc-61192-SH, Neurotrimin shRNA (h) Lentiviral Particles: sc-61191-V and Neurotrimin shRNA (m) Lentiviral Particles: sc-61192-V.

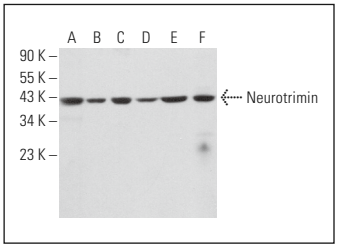
Molecular Weight of Neurotrimin: 39 kDa.

Molecular Weight of glycosylated Neurotrimin: 55-65 kDa.

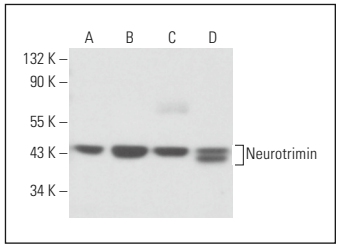
STORAGE

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

DATA



Neurotrimin (F-9): sc-390941. Western blot analysis of Neurotrimin expression in HUV-EC-C (**A**), Jurkat (**B**), Hep G2 (**C**), K-562 (**D**) and c4 (**E**) whole cell lysates and mouse brain tissue extract (**F**). Detection reagent used: m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM.



Neurotrimin (F-9): sc-390941. Western blot analysis of Neurotrimin expression in Neuro-2A (**A**), IMR-32 (**B**), SK-MEL-24 (**C**) and H4 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yu, B., et al. 2012. miR-182 inhibits Schwann cell proliferation and migration by targeting FGF9 and NTM, respectively at an early stage following sciatic nerve injury. Nucleic Acids Res. 40: 10356-10365.
2. Vanaveski, T., et al. 2017. Promoter-specific expression and genomic structure of IgLON family genes in mouse. Front. Neurosci. 11: 38.
3. García-Berrocoso, T., et al. 2018. Single cell immuno-laser microdissection coupled to label-free proteomics to reveal the proteotypes of human brain cells after ischemia. Mol. Cell. Proteomics 17: 175-189.
4. Kanellopoulos, A.H., et al. 2018. Mapping protein interactions of sodium channel $Na_V1.7$ using epitope-tagged gene-targeted mice. EMBO J. 37: 427-445.
5. Karis, K., et al. 2018. Altered expression profile of IgLON family of neural cell adhesion molecules in the dorsolateral prefrontal cortex of schizophrenic patients. Front. Mol. Neurosci. 11: 8.
6. Jagomäe, T., et al. 2021. Alternative promoter use governs the expression of IgLON cell adhesion molecules in histogenetic fields of the embryonic mouse brain. Int. J. Mol. Sci. 22: 6955.

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.