# SANTA CRUZ BIOTECHNOLOGY, INC.

# Neurexophilin-3 (B-11): sc-393156



## BACKGROUND

Neurexophilin-1 (also known as NPH1 or NXPH1), Neurexophilin-2 (also known as NPH2 or NXPH2) and Neurexophilin-3 (also known as NPH3 or NXPH3) are members of the Neurexophilin family (Neurexophilin-1-4) of neuropeptide-like glycoproteins that are proteolytically processed after synthesis. Neurexophilin-1-3 are secreted proteins that are thought to function as signaling molecules which specifically bind to target proteins, such as neurexin  $l\alpha$  (a protein that promotes adhesion between dendrites and axons), and are essential for proper neurotransmitter release. While Neurexophilin-1 is located primarily in spleen tissue, Neurexophilin-2 is expressed primarily in kidney and both Neurexophilin-2 and Neurexophilin-3 are highly expressed in brain. Defects in the gene encoding Neurexophilin-1 may be associated with schizophrenia, a mental disorder characterized by an abnormal perception of reality.

# REFERENCES

- 1. Petrenko, A.G., et al. 1996. Structure and evolution of neurexophilin. J. Neurosci. 16: 4360-4369.
- 2. Missler, M., et al. 1998. Neurexophilin binding to  $\alpha$ -neurexins. A single LNS domain functions as an independently folding ligand-binding unit. J. Biol. Chem. 273: 34716-34723.
- 3. Missler, M. and Südhof, T.C. 1998. Neurexophilins form a conserved family of neuropeptide-like glycoproteins. J. Neurosci. 18: 3630-3638.
- 4. Clarris, H.J., et al. 2002. Expression of neurexin ligands, the neuroligins and the neurexophilins, in the developing and adult rodent olfactory bulb. Int. J. Dev. Biol. 46: 649-652.

#### **CHROMOSOMAL LOCATION**

Genetic locus: NXPH3 (human) mapping to 17q21.33; Nxph3 (mouse) mapping to 11 D.

#### SOURCE

Neurexophilin-3 (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 175-202 within an internal region of Neurexophilin-3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Neurexophilin-3 (B-11) is available conjugated to agarose (sc-393156 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393156 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393156 PE), fluorescein (sc-393156 FITC), Alexa Fluor® 488 (sc-393156 AF488), Alexa Fluor® 546 (sc-393156 AF546), Alexa Fluor® 594 (sc-393156 AF594) or Alexa Fluor® 647 (sc-393156 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-393156 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-393156 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393156 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

# **APPLICATIONS**

Neurexophilin-3 (B-11) is recommended for detection of Neurexophilin-3 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).

Neurexophilin-3 (B-11) is also recommended for detection of Neurexophilin-3 in additional species, including equine and canine.

Suitable for use as control antibody for Neurexophilin-3 siRNA (h): sc-62679, Neurexophilin-3 siRNA (m): sc-62680, Neurexophilin-3 shRNA Plasmid (h): sc-62679-SH, Neurexophilin-3 shRNA Plasmid (m): sc-62680-SH, Neurexophilin-3 shRNA (h) Lentiviral Particles: sc-62679-V and Neurexophilin-3 shRNA (m) Lentiviral Particles: sc-62680-V.

Molecular Weight of Neurexophilin-3: 28 kDa.

Positive Controls: Neurexophilin-3 (m): 293T Lysate: sc-125696.

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG K BP-HRP: sc-516102 or m-IgG K 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). Immunofluorescence: use m-lgGκ BP-FITC: sc-516140 or m-lgGκ 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



analysis of Neurexophilin-3 expression in non-transfected: sc-117752 (**A**) and mouse Neurexophilin-3 transfected: sc-125696 (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.

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