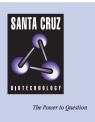
# SANTA CRUZ BIOTECHNOLOGY, INC.

# CASPR3/3B (P-16): sc-162642



#### BACKGROUND

Neurexins comprise a family of neuronal cell surface proteins, which include neurexin I (NRXN1), neurexin II (NRXN2), neurexin III (NRXN3) and CASPR (neurexin IV). CASPR3 (contactin associated protein-like 3), also known as CNTNAP3A, is a 1,288 amino acid protein belonging to the neurexin family that exists as two alternatively spliced isoforms with different subcellular localization patterns: CASPR3 isoform 1 is a single-pass type I membrane protein whereas isoform 2 is a secreted protein. Suggested to play a role in nervous system cell recognition, CASPR3 is expressed in axons of the spinal cord, corpus callosum and basket cells of the cerebellum, as well as in oligo-dendrocytes and peripheral nerves. CASPR3 contains four laminin G-like domains, one F5/8 type C domain, two EGF-like domains and a fibrinogen C-terminal domain.

#### REFERENCES

- Bellen, H.J., Lu, Y., Beckstead, R. and Bhat, M.A. 1998. Neurexin IV, CASPR and paranodin—novel members of the neurexin family: encounters of axons and glia. Trends Neurosci. 21: 444-449.
- Nagase, T., Kikuno, R., Hattori, A., Kondo, Y., Okumura, K. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 7: 347-355.
- Spiegel, I., Salomon, D., Erne, B., Schaeren-Wiemers, N. and Peles, E. 2002. CASPR3 and CASPR4, two novel members of the CASPR family are expressed in the nervous system and interact with PDZ domains. Mol. Cell. Neurosci. 20: 283-297.
- Girault, J.A., Oguievetskaia, K., Carnaud, M., Denisenko-Nehrbass, N. and Goutebroze, L. 2003. Transmembrane scaffolding proteins in the formation and stability of nodes of Ranvier. Biol. Cell. 95: 447-452.
- Traut, W., Weichenhan, D., Himmelbauer, H. and Winking, H. 2006. New members of the neurexin superfamily: multiple rodent homologues of the human CASPR5 gene. Mamm. Genome 17: 723-731.
- 6. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610517. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

#### CHROMOSOMAL LOCATION

Genetic locus: CNTNAP3 (human) mapping to 9p13.1, CNTNAP3B (human) mapping to 9p11.2.

#### SOURCE

CASPR3/3B (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CASPR3 of human origin.

#### STORAGE

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

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162642 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

CASPR3/3B (P-16) is recommended for detection of CASPR3 and CNTNAP3B of 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); non cross-reactive with other CASPR family members.

Suitable for use as control antibody for CASPR3 siRNA (h): sc-92900, CASPR3 shRNA Plasmid (h): sc-92900-SH and CASPR3 shRNA (h) Lentiviral Particles: sc-92900-V.

Molecular Weight of CASPR3/3B: 141 kDa.

#### **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) Immunofluo-rescence: 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.

## **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.