

Cntnap3 (E-14): sc-162638

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). Cntnap3 (contactin associated protein-like 3) is a 1,288 amino acid protein belonging to the neurexin family that exists as 2 alternatively spliced isoforms with different subcellular localization patterns: Cntnap3 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, Cntnap3 is expressed in axons of the spinal cord, corpus callosum and basket cells of the cerebellum, as well as in oligodendrocytes and peripheral nerves. Cntnap3 contains four laminin G-like domains, one F5/8 type C domain, two EGF-like domains and a fibrinogen C-terminal domain.

REFERENCES

1. Bellen, H.J., et al. 1998. Neurexin IV, CASPR and paranodin—novel members of the neurexin family: encounters of axons and glia. *Trends Neurosci.* 21: 444-449.
2. Nagase, T., et al. 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.
3. Spiegel, I., et al. 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.
4. Girault, J.A., et al. 2003. Transmembrane scaffolding proteins in the formation and stability of nodes of Ranvier. *Biol. Cell* 95: 447-452.
5. Traut, W., et al. 2006. New members of the neurexin superfamily: multiple rodent homologues of the human CASPR5 gene. *Mamm. Genome* 17: 723-731.
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CHROMOSOMAL LOCATION

Genetic locus: Cntnap3 (mouse) mapping to 13 B3.

SOURCE

Cntnap3 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Cntnap3 of mouse 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-162638 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Cntnap3 (E-14) is recommended for detection of Cntnap3 of mouse origin and corresponding rat homolog 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 Cntnap3 siRNA (m): sc-142445, Cntnap3 shRNA Plasmid (m): sc-142445-SH and Cntnap3 shRNA (m) Lentiviral Particles: sc-142445-V.

Molecular Weight of Cntnap3: 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) 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.

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.