

Contactin 2 (K-21): sc-13686

BACKGROUND

Contactin 2 (CNTN2, transiently-expressed axonal glycoprotein, AXT, TAX, TAX-1, TAG-1, Axonin-1) is a neuronal cell adhesion molecule (CAM) that influences the formation of axon connections in the developing nervous system. Contactin 2 is a member of the immunoglobulin superfamily (IgSF) and contains a glycosylphosphatidylinositol-anchor, six immunoglobulin (Ig)-like and four Fibronectin type III (FNIII)-like domains. Contactin 2 is expressed predominantly during neural development on the cell membrane of axons in nerve fiber tracts in order to guide commissural axons without promoting their growth. Contactin 2 binds with NgCAM in the plane of the same membrane (*cis*-binding). The Contactin 2 heterophilic (Contactin 2/NgCAM and Contactin 2/NrCAM) binding sites are localized to the first four Ig domains. The Contactin 2 homophilic (Contactin 2/Contactin 2) binding site is localized to the FNIII domain.

REFERENCES

1. Kozlov, S.V., Giger, R.J., Hasler, T., Korvatska, E., Schorderet, D.F. and Sonderegger, P. 1995. The human TAX-1 gene encoding the axon-associated cell adhesion molecule TAG-1/Axonin-1: genomic structure and basic promoter. *Genomics* 30: 141-148.
2. Wolfer, D.P., Giger, R.J., Stagliar, M., Sonderegger, P. and Lipp, H.P. 1998. Expression of the axon growth-related neural adhesion molecule TAG/Axonin-1 in the adult mouse brain. *Anat. Embryol.* 197: 177-185.
3. Kunz, S., Spirig, M., Ginsburg, C., Buchstaller, A., Berger, P., Lanz, R., Rader, C., Vogt, L., Kunz, B. and Sonderegger, P. 1998. Neurite fasciculation mediated by complexes of Axonin-1 and Ng cell adhesion molecule. *J. Cell Biol.* 143: 1673-1690.
4. Lustig, M., Sakuri, T. and Grumet, M. 1999. NrCAM promotes neurite outgrowth from peripheral ganglia by a mechanism involving Axonin-1 as a neuronal receptor. *Dev. Biol.* 209: 340-351.
5. Fitzli, D., Stoeckli, E.T., Kunz, S., Siribour, K., Rader, C., Kunz, B., Kozlov, S.V., Buchstaller, A., Lane, R.P., Suter, D.M., Dreyer, W.J. and Sonderegger, P. 2000. A direct interaction of Axonin-1 with NgCAM-related cell adhesion molecule (NrCAM) results in guidance, but no growth of commissural axons. *J. Cell Biol.* 149: 951-968.

CHROMOSOMAL LOCATION

Genetic locus: CNTN2 (human) mapping to 1q32.1; Cntn2 (mouse) mapping to 1 E4.

SOURCE

Contactin 2 (K-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Contactin 2 of human 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-13686 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Contactin 2 (K-21) is recommended for detection of Contactin 2 of mouse, rat and 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).

Contactin 2 (K-21) is also recommended for detection of Contactin 2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Contactin 2 siRNA (h): sc-43087, Contactin 2 siRNA (m): sc-43088, Contactin 2 shRNA Plasmid (h): sc-43087-SH, Contactin 2 shRNA Plasmid (m): sc-43088-SH, Contactin 2 shRNA (h) Lentiviral Particles: sc-43087-V and Contactin 2 shRNA (m) Lentiviral Particles: sc-43088-V.

Molecular Weight of Contactin 2: 135 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **Contactin 2 (F-1): sc-376780**, our highly recommended monoclonal alternative to Contactin 2 (K-21).