

Contactin 2 (L-14): sc-13685

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 (Axonin-1/NgCAM and Axonin/NrCAM) binding sites are localized to the first four Ig domains. The Contactin 2 homophilic (Anoxin-1/Anoxin-1) binding site is localized to the FNIII domain.

REFERENCES

1. Kozlov, S.V., et al. 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., et al. 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., et al. 1998. Neurite fasciculation mediated by complexes of Axonin-1 and Ng cell adhesion molecule. *J. Cell Biol.* 143: 1673-1690.
4. Lustig, M., et al. 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., et al. 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.
6. Freigang, J., et al. 2000. The crystal structure of the ligand binding module of Axonin-1/TAG-1 suggests a zipper mechanism for neural cell adhesion. *Cell* 101: 425-433.

CHROMOSOMAL LOCATION

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

SOURCE

Contactin 2 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-13685 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Contactin 2 (L-14) 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), 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).

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.

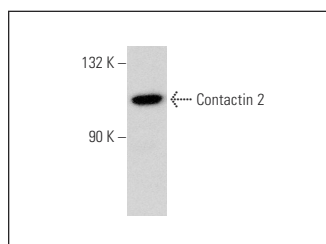
Molecular Weight of Contactin 2: 135 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or Daoy whole cell lysate: sc-364381.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Contactin 2 (L-14): sc-13685. Western blot analysis of Contactin 2 expression in Daoy whole cell lysate.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **Contactin 2 (F-1): sc-376780**, our highly recommended monoclonal alternative to Contactin 2 (L-14).