

Contactin 2 (F-1): sc-376780

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., et al. 1995. The human TAX1 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.

CHROMOSOMAL LOCATION

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

SOURCE

Contactin 2 (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-53 near the N-terminus of Contactin 2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Contactin 2 (F-1) is available conjugated to agarose (sc-376780 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376780 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376780 PE), fluorescein (sc-376780 FITC), Alexa Fluor® 488 (sc-376780 AF488), Alexa Fluor® 546 (sc-376780 AF546), Alexa Fluor® 594 (sc-376780 AF594) or Alexa Fluor® 647 (sc-376780 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376780 AF680) or Alexa Fluor® 790 (sc-376780 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Contactin 2 (F-1) is available conjugated to biotin (sc-376780 B), 200 µg/ml, for WB, IHC(P) and ELISA.

Blocking peptide available for competition studies, sc-376780 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Contactin 2 (F-1) is recommended for detection of Contactin 2 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).

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.

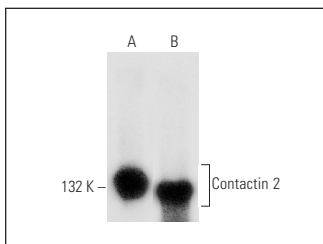
Molecular Weight of Contactin 2: 135 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, SH-SY5Y cell lysate: sc-3812 or mouse brain extract: sc-2253.

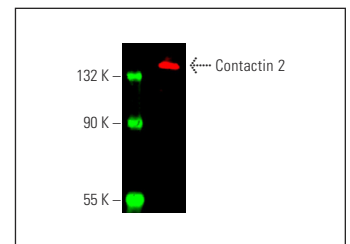
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



Contactin 2 (F-1): sc-376780. Western blot analysis of Contactin 2 expression in IMR-32 whole cell lysate (A) and mouse brain tissue extract (B).



Contactin 2 (F-1) Alexa Fluor® 790: sc-376780 AF790. Direct near-infrared western blot analysis of Contactin 2 expression in SH-SY5Y whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 680: sc-516730.

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.