

Contactin 4 (Y-18): sc-68162

BACKGROUND

Contactin 4 is a 1,026 amino acid protein encoded by the human gene CNTN4. Contactin 4 belongs to the immunoglobulin superfamily and is a member of the Contactin family. Contactin 4 contains four Fibronectin type-3 domains and six Ig-like C2-type domains, and has three isoforms (1, 2 and 3). Defects in the CNTN4 gene are a cause of 3p deletion syndrome (3PDS). 3PDS is a rare contiguous gene disorder involving the loss of the telomeric portion of the short arm of chromosome 3 and is characterized by developmental delay, growth retardation and dysmorphic features. Contactin 4 is primarily expressed in brain tissue. Highest expression has been found in the cerebellum, with lowest levels found in corpus callosum, caudate nucleus, amygdala and spinal cord. Some expression is also found in testis, pancreas, thyroid, uterus, small intestine and kidney. Contactin 4 is not believed to be expressed in skeletal muscle. Isoform 2 is weakly expressed in cerebral cortex.

REFERENCES

1. Mimmack, M.L., et al. 1997. A novel splice variant of the cell adhesion molecule BIG2 is expressed in the olfactory and vomeronasal neuroepithelia. *Brain Res. Mol. Brain Res.* 47: 345-350.
2. Zeng, L., et al. 2002. A novel splice variant of the cell adhesion molecule Contactin 4 (CNTN4) is mainly expressed in human brain. *J. Hum. Genet.* 47: 497-499.
3. Hansford, L.M., et al. 2003. Cloning and characterization of the human neural cell adhesion molecule, CNTN4 (alias BIG2). *Cytogenet. Genome Res.* 101: 17-23.
4. Fernandez, T., et al. 2004. Disruption of Contactin 4 (CNTN4) results in developmental delay and other features of 3p deletion syndrome. *Am. J. Hum. Genet.* 74: 1286-1293.
5. Liu, T., et al. 2005. Human plasma N-glycoproteome analysis by immunoaffinity subtraction, hydrazide chemistry, and mass spectrometry. *J. Proteome Res.* 4: 2070-2080.
6. Dijkhuizen, T., et al. 2006. FISH and array-CGH analysis of a complex chromosome 3 aberration suggests that loss of CNTN4 and CRBN contributes to mental retardation in 3pter deletions. *Am. J. Med. Genet. A.* 140: 2482-2487.
7. Rivera, H., et al. 2007. Follow-up of an intelligent odd-mannered teenager with del(3)(p26). Remarks on authorship and ethical commitment. *Genet. Couns.* 17: 401-405.

CHROMOSOMAL LOCATION

Genetic locus: CNTN4 (human) mapping to 3p26.3; Cntn4 (mouse) mapping to 6 E1.

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.

SOURCE

Contactin 4 (Y-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Contactin 4 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-68162 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Contactin 4 (Y-18) is recommended for detection of Contactin 4 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 4 (Y-18) is also recommended for detection of Contactin 4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Contactin 4 siRNA (h): sc-62138, Contactin 4 siRNA (m): sc-62139, Contactin 4 shRNA Plasmid (h): sc-62138-SH, Contactin 4 shRNA Plasmid (m): sc-62139-SH, Contactin 4 shRNA (h) Lentiviral Particles: sc-62138-V and Contactin 4 shRNA (m) Lentiviral Particles: sc-62139-V.

Molecular Weight of Contactin 4: 113 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.

PROTOCOLS

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