Human/Mouse/Rat Contactin-2/TAG1 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4439N
100 µg

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects mouse and rat Contactin-2 in direct ELISAs. Detects human, mouse, and rat Contactin-2 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Contactin-2/TAG1 Gln31-Ser1014 Accession # Q61330
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Contactin-2 (CNTN2), also called TAG1 (transient axonal glycoprotein), TAX1 (transiently-expressed axonal glycoprotein), or axonin-1, is a 135 kDa glycosyl-phosphatidylinositol (GPI)- anchored cell adhesion molecule that belongs to the contactin subfamily within the immunoglobulin (Ig) protein superfamily (1-3). Mouse Contactin-2 cDNA encodes a 30 amino acid (aa) signal peptide, a 984 aa mature secreted protein with 6 Ig-like domains followed by 4 fibronectin type III-like repeats, and a 26 aa C-terminal GPI anchor pro-sequence. GPI-specific phospholipase activity can release soluble, active Contactin-2 from the membrane (2). Mature mouse Contactin-2 shares approximately 93%, 97%, and 77% aa sequence identity with human, rat, and chicken Contactin-2, respectively. During development, Contactin-2 is expressed by a subset of neuronal populations in the central nervous system (CNS) and peripheral nervous system (PNS), particularly during initial phases of axon outgrowth (3-5). Both the 135 kDa form and a 90 kDa form are also upregulated in response to CNS injury in the adult (6). Data support a role for Contactin-2 in axon pathfinding, neurite outgrowth and adhesion, especially in the CNS (3-6). In mature myelinated fibers, Contactin-2 is expressed by oligodendrocytes and Schwann cells, which are myelinating glial cells of the CNS and PNS, respectively (7, 8). It is enriched in the juxtaparanodal regions, where it recruits contactin-associated protein 2 (caspr2), a transmembrane neurexin involved in cell adhesion and intercellular communication (7-10). The axonal Contactin-2 interacts in cis with caspr2 and in trans with another Contactin-2 on the glial membrane (8). This ternary complex is required for the accumulation and organization of K^+ channels in the juxtaparanodes (9).

PRODUCT SPECIFIC NOTICES

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