

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Contactin-2/TAG1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Contactin-4, rhContactin-5, recombinant mouse (rm) Contactin-2, and rmCont
Source	Monoclonal Mouse IgG ₁ Clone # 372913
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Contactin-2/TAG1 Leu29-Asn1012 Accession # Q02246
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

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 TAG-1 (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). Human Contactin-2 cDNA encodes a 28 amino acid (aa) signal peptide, a 984 aa mature secreted protein with six Ig-like domains followed by four fibronectin type III-like repeats, and a 28 aa C-terminal GPI anchor pro-sequence. GPI-specific phospholipase activity can release soluble, active Contactin-2 from the membrane (2). Mature human Contactin-2 shares approximately 93%, 93% and 75% 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 (36). 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 caspr2 (Contactin-associated protein 2), a transmembrane neuroligin 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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