

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Contactin-5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human (rh) Contactin-2 and rhContactin-3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Contactin-5 Glu19-Gln1059 Accession # O94779
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-5 (CNTN5), also known as NB-2, is a neural adhesion molecule in the contactin family of the immunoglobulin superfamily. The contactin family comprises six members (CNTN1/F3, CNTN2/TAG-1, CNTN3/BIG-1, CNTN4/BIG-2, CNTN5/NB-2 and CNTN6/NB-3) that are characterized by the presence of six Ig-like domains, four fibronectin type III-like repeats, and a glycosylphosphatidylinositol (GPI)-anchoring domain (1, 2). The human Contactin-5 cDNA exists in two splice forms which contain an 18 amino acid (aa) signal sequence and a 28 aa C-terminal propeptide. The long isoform is a 1082 aa protein that shares 91% aa sequence identity with rat and mouse Contactin-5. The short isoform lacks the first 74 aa at the N-terminus of the long isoform. Human Contactin-5 shares 43%, 41%, 52%, 52%, and 48% aa identity with Contactins-1, -2, -3, -4, and -6, respectively (3). Contactin family proteins exist as membrane-bound proteins, but can also be released as soluble proteins by GPI-specific phospholipase D. The gene encoding Contactin-5 is localized to a chromosomal region associated with schizophrenia and the neuronal disorder Jacobsen syndrome (4). The highest expression of human Contactin-5 is seen in occipital lobe and amygdala, followed by cerebral cortex, frontal lobe, thalamus, and temporal lobe (4). In rat, Contactin-5 is highly expressed specifically in structures of the central auditory pathway (5). Also in rat, Contactin-5 has been shown to promote neurite outgrowth of cerebral cortical neurons *in vitro* (5). Deficient Contactin-5 expression in mice results in impaired neuronal activity of the central auditory system (6).

PRODUCT SPECIFIC NOTICES

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