

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Contactin-1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse (rm) Contactin-2 and rmContactin-4 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Contactin-1 Asp21-Thr999 Accession # AAH66864
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.
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

CNTN1 (Contactin-1; also neuronal cell surface protein F3/F11) is a 135-145 kDa GPI-linked glycoprotein member of the Contactin family, Ig superfamily of molecules. It is expressed on the surface of oligodendrocytes and neurons, principally on axons, and has multiple binding partners. In particular, it binds to astrocyte tenascin-C, Schwann cell NF/neurofascin-155, and oligodendrocyte produced tenascin-R and Notch in-trans, plus paranodin in-cis. Tenascin-R interactions inhibit neurite outgrowth, paranodin/NF155 interactions may contribute to Ranvier node development, and Notch ligation results in oligodendrocyte maturation. CNTN1 also binds to chondroitin sulfate-E, an interaction that initiates neurite outgrowth. Mouse CNTN1 is synthesized as a 1020 amino acid (aa) preproprecursor (aa 1-1020). It contains a 20 aa signal sequence, followed by a 981 aa mature region (aa 21-1001), and a 19 aa propeptide. The mature region possesses six consecutive C2-type Ig-like domains (aa 41-603) that regulate neurite outgrowth, followed by three FN-type III domains (aa 605-901) that regulate adhesiveness. It is estimated that 15% of the native MW constitutes carbohydrate, part of which is represented by the HNK-1 antigen (3-sulfo-GluA-Gal-GlcNac). Over aa 20-999, mouse CNTN1 shares 96% and 99% aa sequence identity with human and rat CNTN1, respectively.

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