Human/Mouse/Rat Contactin-1 Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF904

DESCRIPTION
Species Reactivity: Human/Mouse/Rat
Specificity: Detects human Contactin-1 in direct ELISAs. Detects human, mouse, and rat Contactin-1 in Western blots.
Source: Polyclonal Goat IgG
Purification: Antigen Affinity-purified
Immunogen: S. frugiperda insect ovarian cell line S/21-derived recombinant human Contactin-1 Glu21-Ser993
Accession #: CAA79696
Endotoxin Level: <0.10 EU per 1 µg of the antibody by the LAL method.
Formulation: Lyophilized from a 0.2 µg/mL filtered solution in PBS with Trehalose. See Certificate of Analysis for details.
*Small pack size (-SP) is supplied either lyophilized or as a 0.2 mg/mL filtered solution in PBS.

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.

Recommended Concentration | Sample
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Western Blot | 0.5 µg/mL
Immunohistochemistry | 5-15 µg/mL
Simple Western | 5 µg/mL

DATA
Western Blot
Detection of Human, Mouse, and Rat Contactin-1 by Western Blot. Western blot shows lysates of human brain (cortex) tissue, human brain (cerebellum) tissue, mouse brain (cerebellum) tissue, mouse brain (total) tissue, and rat brain (total) tissue. PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human/Mouse/Rat Contactin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF904) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Contactin-1 at approximately 136 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry
Contactin-1 in Human Dorsal Root Ganglia. Contactin-1 was detected in immersion fixed paraffin-embedded sections of human dorsal root ganglia using 15 µg/mL Goat Anti-Human/Mouse/Rat Contactin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF904) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western
Detection of Human and Mouse Contactin-1 by Simple Western™. Simple Western lane shows lysates of human brain tissue and mouse brain tissue, loaded at 0.2 mg/mL. A specific band was detected for Contactin-1 at approximately 158 kDa (as indicated) using 5 µg/mL of Goat Anti-Human/Mouse/Rat Contactin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF904) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Neutralization
Cell Adhesion Mediated by Contactin-1 and Neutralization by Human Contactin-1 Antibody. Recombinant Human Contactin-1 Fc Chimera (Catalog # 604-CN), immobilized onto a microplate, supports the adhesion of the C6 rat glioma cell line in a dose-dependent manner (orange line). Adhesion elicited by Recombinant Human Contactin-1 Fc Chimera (2 µg/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human/Mouse/Rat Contactin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF904). The ND50 is typically 1-5 µg/mL.

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**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at 20 to 70 °C.

**Stability & Storage**
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**
Contactin-1 (CNTN1) is a member of the contactin subgroup within the immunoglobulin superfamily. It was originally designated contactin in human, F3 in rodents, and F11 in chicken. Other members of this family in human include Contactin-2 (TAG-1), Contactin-5 (NB-2), and Contactin-6 (NB-3). Additional family members have been described in other species. CNTN1 shares less than 50% amino acid sequence identity with the other contactins. The human and rodent CNTN1 proteins share 96% sequence identity. The 998 amino acid mature protein contains 6 Ig-like domains and 4 fibronectin type III-like domains, and is attached to the membrane by a GPI anchor. CNTN1 is differentially expressed in numerous neuronal tissues and functions in nervous system development. It associates with two other cell-surface proteins believed to participate in signal transduction, receptor protein tyrosine phosphatase beta (RPTPβ) and Contactin-associated protein (Caspr). Reported ligands include Nr-CAM and the extracellular matrix glycoprotein, tenascin.

**References:**