

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Caspr1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Caspr2 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 753232
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human Caspr1 Trp20-Gly1280 Accession # P78357
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.

Immunocytochemistry 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-associated protein 1 (Caspr1), also known as Neurexin-4, Paranodin, and NCP1, is an approximately 190 kDa transmembrane protein that is concentrated at paranodal junctions of axons during myelination. It is required for junction formation and ion channel localization and plays an important role in the propagation of saltatory nerve conduction. Caspr1 interacts with Contactins and Nogo-A at the paranodal junction and inhibits the binding of Contactin to glial cell Neurofascin. Caspr1 is proteolytically cleaved by Reelin, and this action is inhibited by the cellular prion protein (PrP). Mature human Caspr1 consists of a 1264 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and an 80 aa cytoplasmic domain. The ECD contains one Factor 5/8-like domain, four Laminin-G-like domains, two EGF-like domains, and one Fibrinogen-like domain. Within the ECD, human Caspr1 shares 95% aa sequence identity with mouse and rat Caspr1.

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