Recombinant Protein Technical Manual

Recombinant Mouse CNTNAP2/CASPR2 Protein (His Tag)(Active)

RPES2127

Product Data:

Product SKU: RPES2127

Size: 20µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_001004357.2

Protein Information:

Molecular Mass:	139 kDa
AP Molecular Mass:	14050 kDa
Tag:	C-His
Bio-activity:	Measured by the ability of the immobilized protein to support the adhesionof C6 Rat brain glial cells. Mouse CASPR2 immobilized (0.8 µg/ml, 100 µl/well) will mediate >30 % C6 cell adhesion.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	5430425M22Rik;Caspr2;mKIAA0868

Immunogen Information:

Sequence: Met 1-Ser 1262

Background:

CNTNAP2/CASPR2 is a member of the neurexin family which functions in the vertebrate nervous system as cell adhesion molecules and receptors. This protein, like other neurexin proteins, contains epidermal growth factor repeats and laminin G domains. In addition, it includes an F5/8 type C domain, discoidin/neuropilin- and fibrinogen-like domains, thrombospondin N-terminal-like domains and a putative PDZ binding site. CNTNAP2/CASPR2 is localized at the juxtaparanodes of myelinated axons, and mediates interactions between neurons and glia during nervous system development and is also involved in localization of potassium channels within differentiating axons. This protein encoding gene is directly bound and regulated by forkhead box protein P2 (FOXP2), a transcription factor related to speech and language development. This gene has been implicated in multiple neurodevelopmental disorders, including Gilles de la Tourette syndrome, schizophrenia, epilepsy, autism, ADHD and mental retardation. CNTNAP2/CASPR2 may play a role in the formation of functional distinct domains critical for saltatory conduction of nerve impulses in myelinated nerve fibers. CNTNAP2/CASPR2 Seems to demarcate the juxtaparanodal region of the axo-glial junction.