Recombinant Mouse CNTNAP2/CASPR2 Protein (His Tag)

Catalog No. PKSM040564

Note: Centrifuge before opening to ensure complete recovery of vial contents.

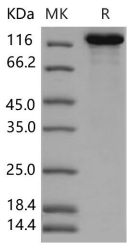
Description

Synonyms	5430425M22Rik;Caspr2;mKIAA0868
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Met 1-Ser 1262
Accession	NP_001004357.2
Calculated Molecular Weight	139 kDa
Observed molecular weight	140-150 kDa
Tag	C-His
Bioactivity	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.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. 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 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Toll-free: 1-888-852-8623 Tel: 1-832-243-6086 Fax: 1-832-243-6017
Web: www.elabscience.com Email: techsupport@elabscience.com

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.

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