Recombinant Mouse CNTNAP2/CASPR2 Protein (His Tag)

Catalog Number: PKSM040564

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

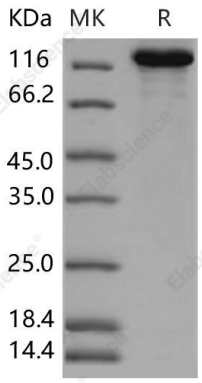
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse CNTNAP2/CASPR2 protein Met 1-Ser 1262, with an C-terminal His
Calculated MW	139 kDa
Observed MW	140-150 kDa
Accession	NP_001004357.2
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.

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°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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% Tween 80 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

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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