

CASPR2 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75604
Synonyms:	Contactin-associated protein-like 2; Cell recognition molecule Caspr2; Cntnap2; Kiaa0868
Species:	Mouse
Source:	HEK293
Accession:	NP_001004357.2 (A28-S1262)
Gene ID:	66797
Molecular Weight:	140-150 kDa

PROPERTIES

AA Sequence

APSTFQK CDE	PLISGLPHVS	FSSSSSLSSS	YAPGYAKINK
RGGAGGWSPS	DSDHYQWLQV	DFGNRKQISA	IATQGRYSSS
DWVTQYRMLY	SDTGRNWKPY	HQDGNIWAFP	GNVNSDSVVR
HDLQHAVVAR	YVRVPLDWN	GEGHIGLRAE	VYGCAYWADV
INFDGHGVLP	YRFRNKKMKT	LKDVIALKFK	TSESEGVLLH
GEGQQGDYIT	LELKKAKLVL	SLNLGSNQLG	PIYGHTSVTS
GSLLDDHHWH	SVLIERQGRS	INLTLDRSMQ	HFRTNGEFDY
LDLDYEITFG	GIPFSGKPPS	SNRKNFKGCM	ESINYNGVNI
TDLARRKKE	PSNMGNLSFS	CVEPYTVPVF	FNATSYLEVP
GRLNQDLFSV	SFQFRTWNPS	GLLLFSHFAD	NLGNVEIDL V
ESKVGVIHNN	TQTKTSQIDI	SSGSGLNDGQ	WHEVRFLAKE
NFAVLTIDGD	EASAVRTNSP	LQVKTGEEKYF	FGGFLNHMNN
ASYSALQPSF	QGCMQLIQVD	DQLVNLYEVA	HRKPGSFANV
TIDMCAIIDR	CVPNHCEHGG	KCSQTWDSFK	CTCDETGYSG
ATCHNSIYEP	SCEAYKHLGQ	TSNYWIDPD	GSGPLGPLKV
YCNMTEDKVV	TIVSHDLQMQ	TTVVGYNPEK	YSVTQLIYSA
SMDQISAIT S	SAEYCEQYVS	YFCRMSRLLN	TPDGSPYTW
VGKAN EKHY	WGGSEPGIQK	CACGIERNCT	DPKYCNCDA
DYKQWRKDAG	FLSYKDHLPV	SQVVVGDTDR	QGSEAKLSVG
PLRCQGDRNY	WNAASFNP S	SYLHFSTFQG	ETSADISFYF
KTLIPRGVFL	ENLGNTDFIK	LELKSATEVS	FSFDVGN GPV
EIVVRSPSPL	NDDQWHRVTA	ERNVKQASLQ	VDRLPQQIRK
APTEGHTRLE	LYSQLFVGGA	GGQQGFLGCI	RSLRMNGVTL
DLEERAKVTS	GFKSGCSGHC	TSYGANCENG	GKCKIEKYHGY
SCDCSNTAYD	GTFCNKDVGA	FFEEGMWLR Y	NFQAPAVTAR
DTGSRAENSA	DQQQH LAPDL	AQEQIHFSFS	TTKAPCILLY
VSSLTTDFLA	VLVKPTGNLQ	IRYNLGGTRE	PFNIDVDHRN
MANGQPHSVN	ITRHERTIIL	KLDHYPAVGY	HLPSSSDTLF
NSPKSLFLGK	VIETGKIDQE	IHKYNTPGFT	GCLSRVQFNH
IAPLKAALRQ	TNASAHVHIQ	GELVESNCGA	SPLT LSPMSS
ATDPWHL DHL	DSASADFPYN	PGQGQAIRNG	VNRNS

Biological Activity	Immobilized Recombinant Mouse CASPR2 at 0.5 µg/mL (100 µL/well) can bind Biotinylated Recombinant Human Contactin-1 Protein. The ED ₅₀ for this effect is 0.7407 µg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in PBS, pH 7.4. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CASPR2 Protein exhibits PDZ domain binding activity and is involved in diverse processes such as chemical synaptic transmission, nervous system development, and synapse organization. It plays a crucial role upstream of or within processes like glutamatergic neuron differentiation, limbic system development, and neuron projection development. CASPR2 is located in various cellular components, including the cerebellar granule cell to Purkinje cell synapse, main axon, and presynaptic active zone membrane, and serves as an integral component of the membrane and the voltage-gated potassium channel complex. Active in dendrites and excitatory synapses, CASPR2 is prominently expressed in the central nervous system and neural retina. It has been studied in the context of autism spectrum disorder and cortical dysplasia-focal epilepsy syndrome. Additionally, its human ortholog(s), particularly CNTNAP2 (contactin-associated protein 2), are implicated in diseases such as Pitt-Hopkins syndrome, autism spectrum disorder, communication disorder, cortical dysplasia-focal epilepsy syndrome, and social phobia. The gene demonstrates biased expression in CNS E18 (RPKM 4.2), whole brain E14.5 (RPKM 3.7), and seven other tissues, highlighting its involvement in critical developmental and neurological processes across various tissues.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA