OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA328643

Caspr2 (CNTNAP2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DPNFTETIDESKKEWLI, corresponding to amino acid residues 1315-1331 of human Caspr2. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	contactin associated protein-like 2
Database Link:	NP_054860 Entrez Gene 66797 MouseEntrez Gene 500105 Rat Q9UHC6

View online »

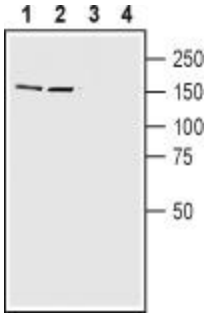
Background: Contactin-associated protein 2 (Caspr2) is a member of the neurexin superfamily, a group of transmembrane proteins that mediate cell–cell interactions in the nervous system. Neurexins are adhesion molecules expressed mainly at presynaptic locations that form trans-synaptic cell – cell adhesion complexes via binding to their postsynaptic partners the neuroligins. Caspr2, like other neurexin proteins, is a type I membrane protein that contains epidermal growth factor repeats, laminin G domains, an F5/8 type C domain, and fibrinogen-like domains in its extracellular domain. Caspr2 is localized at the juxtaparanodes of myelinated axons, a specialized region that mediates interactions between neurons and glia during nervous system development. The juxtaparanodal region is highly enriched with heteromultimers of the K+ channels Kv1.1, Kv1.2, and their cytoplasmic KvÃ?2 subunit, which may help in axon conduction stabilization and the maintenance of the internodal resting potential. Caspr2 is essential for the targeted localization of these channels in the juxtaparanodal regions. Indeed, targeted disruption of Caspr2 resulted in a marked reduction in the accumulation of K+ channels at the juxtaparanodes in both peripheral and central nervous system axons. Moreover, mutations in the Caspr2 gene have been implicated in multiple neurodevelopmental disorders, including Tourette syndrome, schizophrenia, epilepsy, autism, attention-deficit hyperactivity disorder and mental retardation.

Synonyms: AUTS15; CASPR2; CDFE; NRXN4; PTHSL1

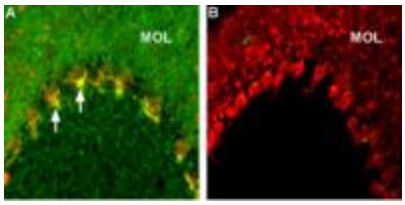
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs)

Product images:



Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain lysates: 1-2. Anti-Caspr2 antibody, (1:200). 3-4. Anti-Caspr2 antibody, preincubated with the control peptide antigen.



Expression of Caspr2 in rat cerebellum. Immunohistochemical staining of rat brain frozen sections using Anti-Caspr2 antibody, (1:200), (green). A. Caspr2 appears in pinceau structures (arrows) and diffusely in the molecular layer (MOL). Staining of the same section for parvalbumin (red) labels Purkinje cells and demonstrates the position of the pinceau under Purkinje cells. B. Pre-incubation of the antibody with the caspr2 peptide antigen blocks the staining, demonstrating specificity.