Revision 4

Store at -20C

#97736

Caspr (D8I3V) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-F	H M R	Endogenous	190	Rabbit IgG	#P78357	8506

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (Frozen)	1:800

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #59964.

Specificity/Sensitivity

Caspr (D8I3V) Rabbit mAb recognizes endogenous levels of total Caspr protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1375 of human Caspr protein.

Background

Contactin-associated protein 1 (Caspr) is a membrane protein that is an essential component of the paranodal junctions in the peripheral and central nervous systems (PNS and CNS, respectively). Caspr is part of the Neurexin family of proteins and is also known as Neurexin IV, Paranodin, and Cntnap1. Caspr forms a complex, via its extracellular domain, with contactin at paranodal junctions of the axon (1, 2). Paranodal junctions are specialized junctions in the axon that are formed between the axolemma and the paranodal loops of myelinating glia. Paranodal structures are critical for salutatory conduction in the PNS and CNS. In the absence of Caspr, Caspr knockout mice exhibit mislocalization of other paranodal junction proteins, including contactin and neurofascin (3). Knockout mice also exhibit reduced nerve conduction velocities, as well as behavior defects consistent with abnormal nerve conduction. Therefore, Caspr is a critical component of a protein complex that is likely central to paranodal junction formation and maintenance.

Background References

1. Einheber, S. et al. (1997) *J Cell Biol* 139, 1495-506.
2. Rios, J.C. et al. (2000) *J Neurosci* 20, 8354-64.
3. Bhat, M.A. et al. (2001) *Neuron* 30, 369-83.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Limited Uses

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