

Product information sheet

Anti-Caspr2 antibody produced in rabbit

Affinity Isolated Antibody, lyophilized powder

C8737

Product Description

Anti-Caspr2 (Contactin-Associated Protein 2) is developed in rabbit using a highly purified synthetic peptide corresponding to amino acids residues 1315-1331 (CDPNFTETIDESKKEWLI) of human Caspr2, with an additional N-terminal cysteine, as the immunogen. This sequence is identical in the mouse protein. The antibody was affinity isolated on immobilized immunogen.

Anti-Caspr2 recognizes the Caspr2 protein in rat brain membranes by immunoblotting.

Caspr2, a member of the neurexin superfamily, is a mammalian homolog of *Drosophila* Neurexin IV (Nrx-IV).¹ Localized to myelinated axons, Caspr2 is believed to play a role in the local differentiation of the axon into functional subdomains. This division is important as salutatory conduction depends on different sets of ion channels being present along myelinated axons. The domains, established during axonal development,² are believed to act as barriers that membrane proteins cannot cross. Caspr2 is precisely colocalized with Shaker-like K⁺ channels in the juxtaparanodal region flanking nodes of Ranvier and has been shown to interact with the channels as well as PSD-95 through its C-terminal PDZ domain.³ Caspr (Paranodin) as well as two recently identified family members, Caspr3 and Caspr4,⁴ are expressed in different and distinct regions of the central nervous system (CNS) where they may function in cell recognition. The intracellular partners of these proteins are poorly characterized. However, Caspr and Caspr2 may interact with the actin-based cytoskeleton through 4.1B.⁵

Reagents

Anti-Caspr2 is supplied as an affinity isolated antibody lyophilized at 0.4 mg/mL from phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin, 5% sucrose, and ≤ 0.1% sodium azide.

Precautions and Disclaimer

This product is for R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the lyophilized vial with 0.05 mL or 0.2 mL of deionized water, depending on the package size purchased. Antibody dilutions should be made in buffer containing 1-3% bovine serum albumin.

Storage/Stability

Prior to reconstitution, store at -20 °C. After reconstitution, the stock antibody solution may be stored at 4 °C for up to 2 weeks. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution is 1:200 for immunoblotting. This antibody detects a single band at ~180 kDa.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, it is recommended to determine optimal working dilutions by titration test.

References

1. Poliak, S. et al., *Neuron*, **24**, 1037-1047 (1999).
2. Poliak, S. et al., *J. Neurosci.*, **21**, 7568-7575 (2001).
3. Rasband, M.N. et al., *J. Cell Biol.*, **159**, 663-672 (2002).

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4. Spiegel, I. et al., Mol. Cell. Neurosci., **20**, 283-297 (2002).
 5. Denisenko-Nehrbass, N. et al., Eur. J. Neurosci., **17**, 411-416 (2003).

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