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ProductInformation

Anti-CRMP-1 (N-terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **C4118**

Product Description

Anti-CRMP1 (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 174-190 of human CRMP1 (GeneID: 1400), conjugated to KLH. This sequence is identical in mouse and rat CRMP1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-CRMP1 (N-terminal) specifically recognizes human, rat, and mouse CRMP1 by immunoblotting, ~62 kDa. Staining of the CRMP1 band in immunoblotting is specifically inhibited by the immunizing peptide.

Collapsin response mediator proteins (CRMPs, also known as DRP, DPYSL, TOAD-64, ULIP) consist of a family of cytosolic phosphoproteins expressed in the nervous system and involved in neuronal differentiation and axonal guidance.[1-3] CRMPs are thought to be a part of the collapsing/semaphorin signal transduction pathway implicated in semaphorin-induced growth cone collapse during neural development.[3] In addition, members of the CRMP family are critical to semaphorin 3A function.[4] CRMPs share sequence similarity (~60% identity) with the enzyme dihydropyrimidinase (DHPase). CRMP1 (DRP1, DPSYL1, ULIP3), CRMP2, CRMP3, and CRMP4 family members are highly homologous (~75% identity). CRMP5/CRAM shares a 50% identity with other CRMPs. CRMPs also share homology with unc-33 required for directional axon growth. They localize to the lamellipodia and filopodia of axonal growth cones, suggesting a role in axon guidance. CRMP1 is involved in the reelin/Dab-1 signaling pathway to regulate neuronal migration in the cerebral cortex.[5] It has also been associated with several forms of cancer and appears to be involved in cancer invasion and metastasis of cancer cells.[6]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.
Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

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

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1 µg/mL is recommended using Hek-293T cells expressing human CRMP1, mouse brain, and rat brain extracts (S1 fraction).
Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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3. Nakamura, F., et al., *J. Neurobiol.*, **44**, 219-229 (2000).
4. Deo, R.C., et al., *EMBO J.*, **23**, 9-22 (2004).
5. Yamashita, N., et al., *J. Neurosci.*, **26**, 13357-13362 (2006).
6. Chang, C.C., et al., *J. Natl. Cancer Inst.*, **96**, 364-375 (2004).

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