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CRMP1 Antibody
Catalog # ASC10363

Specification

CRMP1 Antibody - Product Information

Application	**IF**
Primary Accession	Q14194
Other Accession	AAH07613, 1400
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**CRMP1 antibody can be used for the detection of CRMP1 by Western blot at 0.5 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.**

CRMP1 Antibody - Additional Information

Gene ID **1400**

Other Names
CRMP1 Antibody: DRP1, DRP-1, CRMP-1, DPYSL1, ULIP-3, ULIP3, Dihydropyrimidinase-related protein 1, Collapsin response mediator protein 1, collapsin response mediator protein 1

Target/Specificity
CRMP1 antibody was raised against a 16 amino acid synthetic peptide from near the center of human CRMP1.

The immunogen is located within amino acids 290 - 340 of CRMP1.

Reconstitution & Storage
CRMP1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
CRMP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CRMP1 Antibody - Protein Information

Name CRMP1

Synonyms DPYSL1, ULIP3

Function
Necessary for signaling by class 3 semaphorins and subsequent remodeling of the cytoskeleton (PubMed:25358863). Plays a role in axon guidance (PubMed:<a href="http://www.uniprot.org/citations/25358863"

target="_blank">25358863). During the axon guidance process, acts downstream of SEMA3A to promote FLNA dissociation from F-actin which results in the rearrangement of the actin cytoskeleton and the collapse of the growth cone (PubMed:25358863). Involved in invasive growth and cell migration (PubMed:11562390). May participate in cytokinesis (PubMed:19799413).

Cellular Location
Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, spindle. Cell projection, growth cone {ECO:0000250|UniProtKB:P97427}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:P97427}. Perikaryon {ECO:0000250|UniProtKB:P97427}. Note=Associated with centrosomes and the mitotic spindle during metaphase (PubMed:11562390). Colocalizes with FLNA and tubulin in the central region of DRG neuron growth cone (By similarity). Following SEMA3A stimulation of DRG neurons, colocalizes with F-actin (By similarity) {ECO:0000250|UniProtKB:P97427, ECO:0000269|PubMed:11562390}

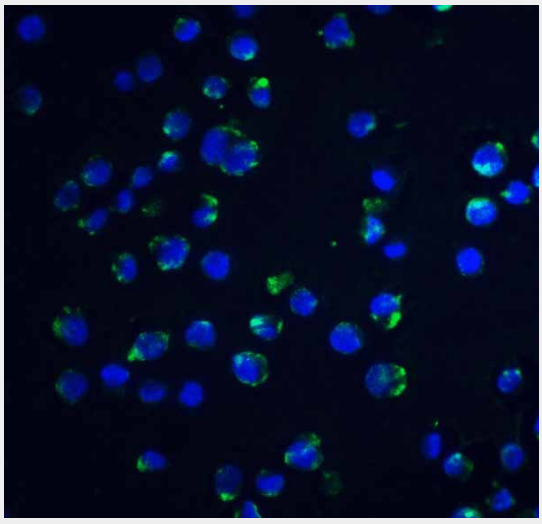
Tissue Location
Brain.

CRMP1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CRMP1 Antibody - Images



Immunofluorescence of Acinus in K562 cells with Acinus antibody at 20 µg/ml.

CRMP1 Antibody - Background

CRMP1 Antibody: Collapsin-response mediator proteins (CRMPs) are highly expressed in the developing brain where they play major roles in axonal outgrowth, neurite differentiation, and apoptosis. Their continued expression in areas of high synaptic remodeling such as the cerebellum, hippocampus, and the olfactory system suggests that these proteins may also be involved in adult brain plasticity. CRMP-1 was initially identified as a dihydro-pyrimidinase expressed exclusively in brain; later studies have shown that it is involved with neurotrophin (NT) 3-induced neurite formation and outgrowth. CRMP-1 localization switches from axonal to somatodendritic when neurons reach functional maturity, suggesting that it is involved in early neuronal differentiation as well as in later processes related to the survival or death of the newly generated neurons.

CRMP1 Antibody - References

Charrier E, Reibel S, Rogemond V, et al. Collapsin response mediator proteins (CRMPs): involvement in nervous system development and adult neurodegenerative disorders. Mol. Neurobiol. 2003; 28:51-64.
Cameron HA and McKay RD. Adult neurogenesis produces a large pool of new granule cells in the dentate gyrus.J. Comp. Neurol. 2001; 435:406-417.
Hamajima N, Matsuda K, Sakata S, et al. A novel gene family defined by human dihydropyrimidinase and three related proteins with differential tissue distribution. Gene. 1996; 180:157-63.
Quach TT, Duchemin A-M, Rogemond V, et al. Involvement of collapsin response mediator proteins in the neurite extension induced by neurotrophins in dorsal root ganglion neurons. Mol. Cell. Neurosci. 2004; 25:433-43.