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PPP1R9B Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP16585a

Specification

PPP1R9B Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q96SB3

PPP1R9B Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 84687

Other Names
Neurabin-2, Neurabin-II, Protein phosphatase 1 regulatory subunit 9B, Spinophilin, PPP1R9B, PPP1R6

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PPP1R9B Antibody (N-term) Blocking Peptide - Protein Information

Name PPP1R9B

Synonyms PPP1R6

Function
Seems to act as a scaffold protein in multiple signaling pathways. Modulates excitatory synaptic transmission and dendritic spine morphology. Binds to actin filaments (F-actin) and shows cross-linking activity. Binds along the sides of the F-actin. May play an important role in linking the actin cytoskeleton to the plasma membrane at the synaptic junction. Believed to target protein phosphatase 1/PP1 to dendritic spines, which are rich in F-actin, and regulates its specificity toward ion channels and other substrates, such as AMPA-type and NMDA-type glutamate receptors. Plays a role in regulation of G- protein coupled receptor signaling, including dopamine D2 receptors and alpha-adrenergic receptors. May establish a signaling complex for dopaminergic neurotransmission through D2 receptors by linking receptors downstream signaling molecules and the actin cytoskeleton. Binds to ADRA1B and RGS2 and mediates regulation of ADRA1B signaling. May confer to Rac signaling specificity by binding to both, RacGEFs and Rac effector proteins. Probably regulates p70 S6 kinase activity by forming a complex with TIAM1 (By similarity). Required for hepatocyte growth factor (HGF)-induced cell migration.

Cellular Location

Cytoplasm, cytoskeleton. Nucleus. Cell projection, dendritic spine {ECO:0000250|UniProtKB:O35274}. Postsynaptic density {ECO:0000250|UniProtKB:O35274}. Synapse. Cell junction, adherens junction. Cytoplasm. Cell membrane. Cell projection, lamellipodium. Cell projection, filopodium. Cell projection, ruffle membrane. Note=Enriched at synapse and cadherin-based cell-cell adhesion sites. In neurons, both cytosolic and membrane-associated, and highly enriched in the postsynaptic density apposed to exitatory synapses. Colocalizes with PPP1R2 at actin-rich adherens junctions in epithelial cells and in dendritic spines (By similarity). Accumulates in the lamellipodium, filopodium and ruffle membrane in response to hepatocyte growth factor (HGF) treatment.

PPP1R9B Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

PPP1R9B Antibody (N-term) Blocking Peptide - Images

PPP1R9B Antibody (N-term) Blocking Peptide - Background

Spinophilin is a regulatory subunit of proteinphosphatase-1 catalytic subunit (PP1; see MIM 176875) and is highlyenriched in dendritic spines, specialized protrusions fromdendritic shafts that receive most of the excitatory input in thecentral nervous system (Allen et al., 1997 [PubMed9275233]).

PPP1R9B Antibody (N-term) Blocking Peptide - References

Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) :Rajagopal, S., et al. J. Biol. Chem. 285(23):18060-18071(2010)Martins-de-Souza, D., et al. Eur Arch Psychiatry Clin Neurosci 259(3):151-163(2009)Sagara, M., et al. Oncogene 28(10):1357-1365(2009)Meng, X., et al. Eur. J. Immunol. 39(2):552-560(2009)