

PPP1R9B Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP16585a

Product Information

Application	WB, E
Primary Accession	Q96SB3
Other Accession	NP_115984.3
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35368
Calculated MW	89334
Antigen Region	24-53

Additional Information

Gene ID	84687
Other Names	Neurabin-2, Neurabin-II, Protein phosphatase 1 regulatory subunit 9B, Spinophilin, PPP1R9B, PPP1R6
Target/Specificity	This PPP1R9B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-53 amino acids from the N-terminal region of human PPP1R9B.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPP1R9B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 excitatory 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.

Background

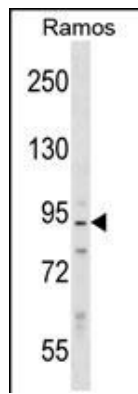
Spinophilin is a regulatory subunit of protein phosphatase-1 catalytic subunit (PP1; see MIM 176875) and is highly enriched in dendritic spines, specialized protrusions from dendritic shafts that receive most of the excitatory input in the central nervous system (Allen et al., 1997 [PubMed 9275233]).

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)
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Images

PPP1R9B Antibody (N-term) (Cat. #AP16585a) western blot analysis in Ramos cell line lysates (35ug/lane).This demonstrates the PPP1R9B antibody detected the PPP1R9B protein (arrow).



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