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PACSIN1 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8087a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9BY11
Other Accession	Q9DDA9, Q9QY17, Q9WVE8, Q9UNF0, O13154, Q9Z0W5, Q61644, A7MBI0
Reactivity	Human, Rat, Mouse
Predicted	Chicken, Bovine, Xenopus, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB3586
Calculated MW	50966
Antigen Region	8-38

Additional Information

Gene ID	29993
Other Names	Protein kinase C and casein kinase substrate in neurons protein 1, Syndapin-1, PACSIN1, KIAA1379
Target/Specificity	This PACSIN1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-38 amino acids from the N-terminal region of human PACSIN1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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	PACSIN1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PACSIN1
Synonyms	KIAA1379

Function	Plays a role in the reorganization of the microtubule cytoskeleton via its interaction with MAPT; this decreases microtubule stability and inhibits MAPT-induced microtubule polymerization. Plays a role in cellular transport processes by recruiting DNM1, DNM2 and DNM3 to membranes. Plays a role in the reorganization of the actin cytoskeleton and in neuron morphogenesis via its interaction with COBL and WASL, and by recruiting COBL to the cell cortex. Plays a role in the regulation of neurite formation, neurite branching and the regulation of neurite length. Required for normal synaptic vesicle endocytosis; this process retrieves previously released neurotransmitters to accommodate multiple cycles of neurotransmission. Required for normal excitatory and inhibitory synaptic transmission (By similarity). Binds to membranes via its F-BAR domain and mediates membrane tubulation.
Cellular Location	Cytoplasm. Cell projection. Synapse, synaptosome. Cell projection, ruffle membrane. Membrane; Peripheral membrane protein Cytoplasmic vesicle membrane; Peripheral membrane protein. Synapse. Cytoplasm, cytosol Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=Colocalizes with MAPT in axons. In primary neuronal cultures, present at a high level in presynaptic nerve terminals and in the cell body. Colocalizes with DNM1 at vesicular structures in the cell body and neurites (By similarity). Associates with membranes via its F-BAR domain.
Tissue Location	Highly expressed in brain and, at much lower levels, in heart and pancreas.

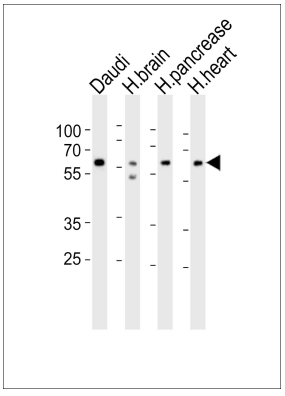
Background

Protein kinases are enzymes that transfer a phosphate group from a phosphate donor, generally the g phosphate of ATP, onto an acceptor amino acid in a substrate protein. By this basic mechanism, protein kinases mediate most of the signal transduction in eukaryotic cells, regulating cellular metabolism, transcription, cell cycle progression, cytoskeletal rearrangement and cell movement, apoptosis, and differentiation. With more than 500 gene products, the protein kinase family is one of the largest families of proteins in eukaryotes. The family has been classified in 8 major groups based on sequence comparison of their tyrosine (PTK) or serine/threonine (STK) kinase catalytic domains. The STE group (homologs of yeast Sterile 7, 11, 20 kinases) consists of 50 kinases related to the mitogen-activated protein kinase (MAPK) cascade families (Ste7/MAP2K, Ste11/MAP3K, and Ste20/MAP4K). MAP kinase cascades, consisting of a MAPK and one or more upstream regulatory kinases (MAPKKs) have been best characterized in the yeast pheromone response pathway. Pheromones bind to Ste cell surface receptors and activate yeast MAPK pathway.

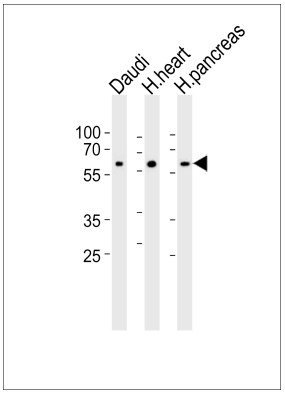
References

Sumoy, L., et al., Gene 262 (1-2), 199-205 (2001).

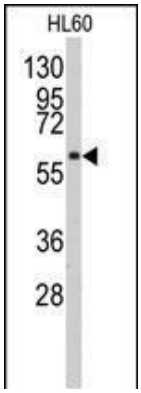
Images



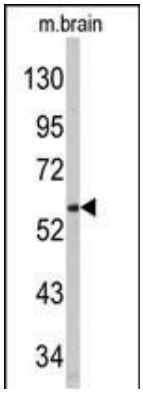
Western blot analysis of lysates from Daudi cell line, human brain, human pancrease, human heart tissue (from left to right), using PACSIN1 Antibody (G23)(Cat. #AP8087a). AP8087a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



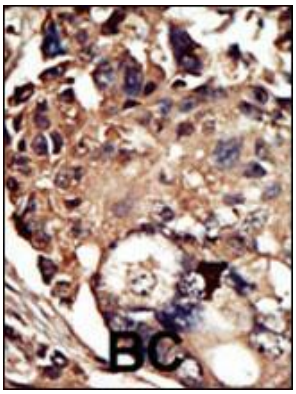
Western blot analysis of lysates from Daudi cell line, human heart and pancreas tissue lysate(from left to right), using PACSIN1 Antibody (G23)(Cat. #AP8087a). AP8087a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of anti-PACSIN1 Pab (Cat. #AP8087a) in HL-60 cell line lysate. PACSIN1 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

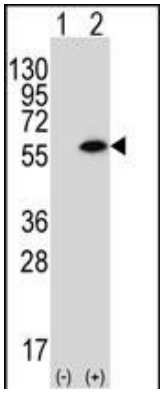


Western blot analysis of anti-PACSIN1 Pab (Cat. #AP8087a) in mouse brain tissue lysate . PACSIN1 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

Western blot analysis of PACSIN1 (arrow) using rabbit polyclonal PACSIN1 Antibody (G23) (Cat. #AP8087a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PACSIN1 gene.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.