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PACSIN1 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8087c

Specification

PACSIN1 Antibody (Center) - Product Information

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

PACSIN1 Antibody (Center) - 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 Central region of human PACSIN1.

Dilution
WB~~1:1000
IHC-P~~1:50~100
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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

PACSIN1 Antibody (Center) - 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.

PACSIN1 Antibody (Center) - 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

PACSIN1 Antibody (Center) - Images

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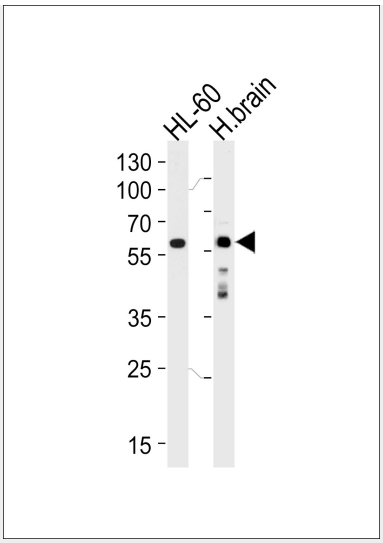
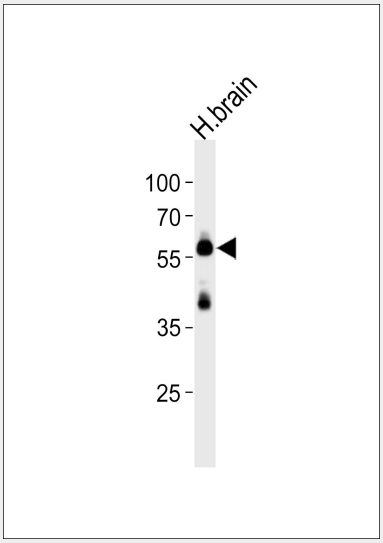


Western blot analysis of lysates from HL-60 cell line and human brain tissue lysate (from left to right), using PACSIN1 Antibody (K310)(Cat. #AP8087c). AP8087c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of lysate from human brain tissue lysate, using PACSIN1 Antibody (K310)(Cat. #AP8087c). AP8087c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.

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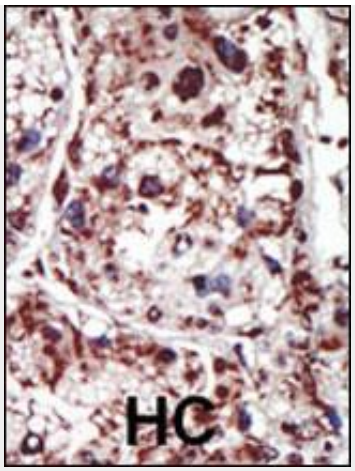

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast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

PACSIN1 Antibody (Center) - 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.

PACSIN1 Antibody (Center) - References

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