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CASK Antibody (Center K227)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7212c

Product Information

Application	WB, E
Primary Accession	O14936
Other Accession	Q62915, O70589
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB15769
Calculated MW	105123
Antigen Region	262-291

Additional Information

Gene ID	8573
Other Names	Peripheral plasma membrane protein CASK, hCASK, Calcium/calmodulin-dependent serine protein kinase, Protein lin-2 homolog, CASK, LIN2
Target/Specificity	This CASK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 262-291 amino acids from the Central region of human CASK.
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 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	CASK Antibody (Center K227) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CASK (HGNC:1497)
Synonyms	LIN2

Function	Multidomain scaffolding Mg(2+)-independent protein kinase that catalyzes the phosphotransfer from ATP to proteins such as NRXN1, and plays a role in synaptic transmembrane protein anchoring and ion channel trafficking (PubMed:18423203). Contributes to neural development and regulation of gene expression via interaction with the transcription factor TBR1. Binds to cell-surface proteins, including amyloid precursor protein, neurexins and syndecans. May mediate a link between the extracellular matrix and the actin cytoskeleton via its interaction with syndecan and with the actin/spectrin-binding protein 4.1. Component of the LIN-10-LIN-2-LIN-7 complex, which associates with the motor protein KIF17 to transport vesicles containing N-methyl-D- aspartate (NMDA) receptor subunit NR2B along microtubules (By similarity).
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q62915}. Cytoplasm {ECO:0000250|UniProtKB:Q62915}. Cell membrane {ECO:0000250|UniProtKB:Q62915}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q62915}
Tissue Location	Ubiquitous. Expression is significantly greater in brain relative to kidney, lung, and liver and in fetal brain and kidney relative to lung and liver.

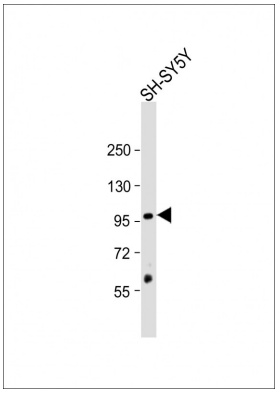
Background

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 calcium/calmodulin-dependent kinase (CAMK) group consists of 75 kinases regulated by Ca2+/CaM and close relative family (CAMK, CAMKL, DAPK, MAPKAPK).

References

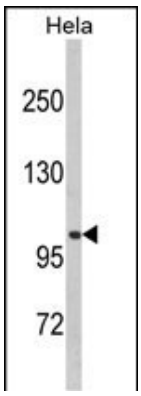
Stevenson, D., et al., Mamm. Genome 11(10):934-937 (2000).
Cohen, A.R., et al., J. Cell Biol. 142(1):129-138 (1998).
Daniels, D.L., et al., Nat. Struct. Biol. 5(4):317-325 (1998).

Images

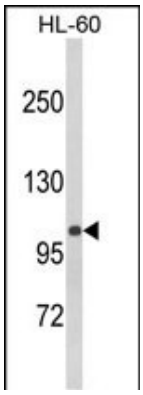


Anti-CASK (Center K227) Antibody at 1:1000 dilution + SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 105 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of CASK (Center K227) (Cat. #AP7212c) in Hela cell line lysates (35ug/lane).CASK



(arrow) was detected using the purified Pab.



Western blot analysis of CASK (Center K227) (Cat. #AP7212c) in HL-60 cell line lysates (35ug/lane).CASK (arrow) was detected using the purified Pab.