10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Ptk6 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14924a

Product Information

Application	WB, E
Primary Accession	Q64434
Other Accession	NP_033210.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35409
Calculated MW	51972
Antigen Region	1-28

Additional Information

Gene ID	20459
Other Names	Protein-tyrosine kinase 6, SRC-related intestinal kinase, Ptk6, Sik
Target/Specificity	This Mouse Ptk6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-28 amino acids from the N-terminal region of mouse Ptk6.
Dilution	WB~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is 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	Mouse Ptk6 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Ptk6
Synonyms	Sik
Function	Non-receptor tyrosine-protein kinase implicated in the regulation of a variety of signaling pathways that control the differentiation and maintenance

	of normal epithelia, as well as tumor growth. Function seems to be context dependent and differ depending on cell type, as well as its intracellular localization. A number of potential nuclear and cytoplasmic substrates have been identified. These include the RNA-binding proteins: KHDRBS1/SAM68, KHDRBS2/SLM1, KHDRBS3/SLM2 and SFPQ/PSF; transcription factors: STAT3 and STAT5A/B and a variety of signaling molecules: ARHGAP35/p190RhoGAP, PXN/paxillin, BTK/ATK, STAP2/BKS. Phosphorylates the GTPase-activating protein ARAP1 following EGF stimulation which enhances EGFR signaling by delaying EGFR down-regulation (By similarity). Also associates with a variety of proteins that are likely upstream of PTK6 in various signaling pathways, or for which PTK6 may play an adapter-like role. These proteins include ADAM15, EGFR, ERBB2, ERBB3 and IRS4. In normal or non-tumorigenic tissues, PTK6 promotes cellular differentiation and apoptosis. In tumors PTK6 contributes to cancer progression by sensitizing cells to mitogenic signals and enhancing proliferation, anchorage-independent survival and migration/invasion. Association with EGFR, ERBB2, ERBB3 may contribute to mammary tumor development and growth through enhancement of EGF-induced signaling via BTK/AKT and PI3 kinase. Contributes to migration and proliferation by contributing to EGF-mediated phosphorylation of ARHGAP35/p190RhoGAP, which promotes association with RASA1/p120RasGAP, inactivating RhoA while activating RAS. EGF stimulation resulted in phosphorylation of PNX/Paxillin by PTK6 and activation of RAC1 via CRK/CrKII, thereby promoting migration and invasion. PTK6 activates STAT3 and STAT5B to promote proliferation. Nuclear PTK6 may be important for regulating growth in normal epithelia, while cytoplasmic PTK6 might activate oncogenic signaling pathways.
Cellular Location	Cytoplasm. Nucleus. Membrane. Cell projection, ruffle. Note=Also found to be membrane-associated Colocalizes with KHDRBS1, within the nucleus
Tissue Location	Expressed only in epithelial tissues, including the skin and lining of the alimentary canal. Restricted to the cell layers immediately above the proliferative cell zone in these epithelia

Background

Phosphorylates KHDRBS2, KHDRBS3 and STAP2/BKS (By similarity). Phosphorylates KHDRBS1. May function as an intracellular signal transducer in epithelial tissues.

References

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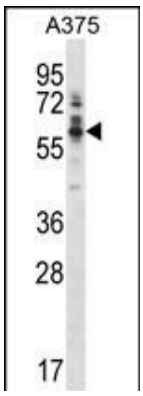
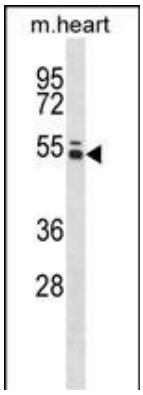
Palka-Hamblin, H.L., et al. J. Cell. Sci. 123 (PT 2), 236-245 (2010) :
Xiang, B., et al. Proc. Natl. Acad. Sci. U.S.A. 105(34):12463-12468(2008)
Whitehead, R.H., et al. J. Gastroenterol. Hepatol. 23 (7 PT 1), 1119-1124 (2008) :
Haegebarth, A., et al. Mol. Cell. Biol. 26(13):4949-4957(2006)

Images

Mouse Ptk6 Antibody (N-term) (Cat. #AP14924a) western blot analysis in A375 cell line lysates (35ug/lane).This demonstrates the Ptk6 antibody detected the Ptk6 protein (arrow).





Mouse Ptk6 Antibody (N-term) (Cat. #AP14924a) western blot analysis in mouse heart tissue lysates (35ug/lane).This demonstrates the Ptk6 antibody detected the Ptk6 protein (arrow).