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PLEKHM1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13049a

Product Information

Application	WB, E
Primary Accession	Q9Y4G2
Other Accession	NP_055613.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32921
Calculated MW	117443
Antigen Region	50-78

Additional Information

Gene ID	9842
Other Names	Pleckstrin homology domain-containing family M member 1, PH domain-containing family M member 1, 162 kDa adapter protein, AP162, PLEKHM1, KIAA0356
Target/Specificity	This PLEKHM1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 50-78 amino acids from the N-terminal region of human PLEKHM1.
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	PLEKHM1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PLEKHM1 (HGNC:29017)
Synonyms	KIAA0356

Function	Acts as a multivalent adapter protein that regulates Rab7- dependent and HOPS complex-dependent fusion events in the endolysosomal system and couples autophagic and the endocytic trafficking pathways. Acts as a dual effector of RAB7A and ARL8B that simultaneously binds these GTPases, bringing about clustering and fusion of late endosomes and lysosomes (PubMed:25498145, PubMed:28325809). Required for late stages of endolysosomal maturation, facilitating both endocytosis- mediated degradation of growth factor receptors and autophagosome clearance. Interaction with Arl8b is a crucial factor in the terminal maturation of autophagosomes and to mediate autophagosome-lysosome fusion (PubMed:25498145). Positively regulates lysosome peripheral distribution and ruffled border formation in osteoclasts (By similarity). May be involved in negative regulation of endocytic transport from early endosome to late endosome/lysosome implicating its association with Rab7 (PubMed:20943950). May have a role in sialyl-lex- mediated transduction of apoptotic signals (PubMed:12820725). Involved in bone resorption (By similarity).
Cellular Location	Autolysosome membrane. Endosome membrane. Late endosome membrane. Lysosome membrane. Note=In case of infection colocalizes with Salmonella typhimurium sifA in proximity of Salmonella-containing vacuole (SCV) (PubMed:25500191).
Tissue Location	Expressed in placenta, liver, prostate, thymus, spleen, ovary, colon, colon carcinoma and peripheral blood lymphocytes (PBL). Weakly expressed in brain, lung, kidney, and testis. No expression in heart, skeletal muscle, pancreas and small intestine Predominantly expressed in the breast carcinoma cell line MCF-7

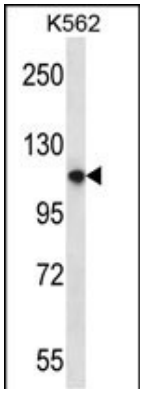
Background

The protein encoded by this gene is essential for bone resorption, and may play a critical role in vesicular transport in the osteoclast. Mutations in this gene are associated with autosomal recessive osteopetrosis type 6 (OPTB6). Alternatively spliced transcript variants have been found for this gene.

References

Edwards, T.L., et al. Ann. Hum. Genet. 74(2):97-109(2010)
Del Fattore, A., et al. J. Bone Miner. Res. 23(3):380-391(2008)
Van Wesenbeeck, L., et al. J. Clin. Invest. 117(4):919-930(2007)
Hartel-Schenk, S., et al. Glycoconj. J. 18 (11-12), 915-923 (2001) :

Images



PLEKHM1 Antibody (N-term) (Cat. #AP13049a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the PLEKHM1 antibody detected the PLEKHM1 protein (arrow).

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