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EHD1 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13814b

Specification

EHD1 Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q9H4M9

EHD1 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 10938

Other Names
EH domain-containing protein 1, PAST homolog 1, hPAST1, Testilin, EHD1, PAST, PAST1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13814b was selected from the C-term region of EHD1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

EHD1 Antibody (C-term) Blocking peptide - Protein Information

Name EHD1 (HGNC:3242)

Function
ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis. In vitro causes vesiculation of endocytic membranes (PubMed:24019528). Acts in early endocytic membrane fusion and membrane trafficking of recycling endosomes (PubMed:15020713, PubMed:17233914, PubMed:20801876). Recruited to endosomal membranes upon nerve growth factor stimulation, indirectly regulates neurite outgrowth (By similarity). Plays a role in myoblast fusion (By similarity). Involved in the unidirectional retrograde dendritic transport of endocytosed BACE1 and in efficient sorting of BACE1 to axons implicating a function in neuronal APP processing (By similarity). Plays a role in the formation of the ciliary vesicle (CV), an early step in cilium biogenesis. Proposed to be required for the fusion of distal appendage vesicles (DAVs) to form the CV by recruiting SNARE complex

component SNAP29. Is required for recruitment of transition zone proteins CEP290, RPGRIP1L, TMEM67 and B9D2, and of IFT20 following DAV reorganization before Rab8-dependent ciliary membrane extension. Required for the loss of CCP110 form the mother centriole essential for the maturation of the basal body during ciliogenesis (PubMed:25686250).

Cellular Location
Recycling endosome membrane; Peripheral membrane protein; Cytoplasmic side. Early endosome membrane; Peripheral membrane protein; Cytoplasmic side. Cell membrane {ECO:0000250|UniProtKB:Q9WVK4}; Peripheral membrane protein; Cytoplasmic side. Cell projection, cilium membrane; Peripheral membrane protein; Cytoplasmic side. Note=Preferentially associates with tubular recycling endosomes (PubMed:15020713, PubMed:17233914, PubMed:19864458, PubMed:23596323). Colocalizes with FER1L5 at plasma membrane in myoblasts and myotubes (By similarity) Localizes to the ciliary pocket from where the cilium protrudes (PubMed:25686250). Colocalizes with BACE1 in tubulovesicular cytoplasmic membranes. Colocalizes with BACE1 and APP amyloid beta proteins in hippocampal mossy fiber terminals (By similarity) {ECO:0000250|UniProtKB:Q9WVK4, ECO:0000269|PubMed:15020713, ECO:0000269|PubMed:17233914, ECO:0000269|PubMed:19864458, ECO:0000269|PubMed:23596323, ECO:0000269|PubMed:25686250}

Tissue Location
Highly expressed in testis.

EHD1 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

EHD1 Antibody (C-term) Blocking peptide - Images

EHD1 Antibody (C-term) Blocking peptide - Background

This gene belongs to a highly conserved gene familyencoding EPS15 homology (EH) domain-containing proteins. Theprotein-binding EH domain was first noted in EPS15, a substrate forthe epidermal growth factor receptor. The EH domain has been shownto be an important motif in proteins involved in protein-proteininteractions and in intracellular sorting. The protein encoded bythis gene is thought to play a role in the endocytosis of IGF1receptors.

EHD1 Antibody (C-term) Blocking peptide - References

Gudmundsson, H., et al. Circ. Res. 107(1):84-95(2010)Sharma, M., et al. Mol. Biol. Cell 20(24):5181-5194(2009)Kieken, F., et al. Protein Sci. 18(12):2471-2479(2009)Jovic, M., et al. Mol. Biol. Cell 20(11):2731-2743(2009)Fichtman, B., et al. Cell. Mol. Biol. Lett. 13(4):632-648(2008)