

EHD3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP7458c**Specification**

EHD3 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O9NZN3](#)**EHD3 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 30845

Other Names

EH domain-containing protein 3, PAST homolog 3, EHD3, EHD2, PAST3

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7458c](/products/AP7458c) was selected from the Center region of human EHD3. 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.

EHD3 Antibody (Center) Blocking Peptide - Protein InformationName EHD3 ([HGNC:3244](#))**Function**

ATP- and membrane-binding protein that controls membrane reorganization/tubulation upon ATP hydrolysis (PubMed: [25686250](http://www.uniprot.org/citations/25686250)). In vitro causes tubulation of endocytic membranes (PubMed: [24019528](http://www.uniprot.org/citations/24019528)). Binding to phosphatidic acid induces its membrane tubulation activity (By similarity). Plays a role in endocytic transport. Involved in early endosome to recycling endosome compartment (ERC), retrograde early endosome to Golgi, and endosome to plasma membrane (rapid recycling) protein transport. Involved in the regulation of Golgi maintenance and morphology (PubMed: [16251358](http://www.uniprot.org/citations/16251358), PubMed: [17233914](http://www.uniprot.org/citations/17233914), PubMed: [19139087](http://www.uniprot.org/citations/19139087), PubMed: [23781025](http://www.uniprot.org/citations/23781025)). Involved in

the recycling of internalized D1 dopamine receptor (PubMed:21791287). Plays a role in cardiac protein trafficking probably implicating ANK2 (PubMed:20489164). Involved in the ventricular membrane targeting of SLC8A1 and CACNA1C and probably the atrial membrane localization of CACNA1G and CACNA1H implicated in the regulation of atrial myocyte excitability and cardiac conduction (By similarity). In conjunction with EHD4 may be involved in endocytic trafficking of KDR/VEGFR2 implicated in control of glomerular function (By similarity). Involved in the rapid recycling of integrin beta-3 implicated in cell adhesion maintenance (PubMed:23781025). 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, an early step in cilium biogenesis; possibly sharing redundant functions with EHD1 (PubMed:25686250).

Cellular Location

Recycling endosome membrane; Peripheral membrane protein; Cytoplasmic side. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, cilium membrane; Peripheral membrane protein; Cytoplasmic side. Note=Localizes to the ciliary pocket from where the cilium protrudes (PubMed:25686250) Colocalizes with RAB8A and MYO5B to a cytoplasmic tubular network devoid of RAB11A (By similarity). Colocalizes with ANK2 in myocyte perinuclear region (PubMed:20489164). 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:Q9QXY6, ECO:0000269|PubMed:20489164, ECO:0000269|PubMed:25686250}

Tissue Location

Highly expressed in heart and brain and moderately expressed in kidney, liver, and placenta

EHD3 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

EHD3 Antibody (Center) Blocking Peptide - Images

EHD3 Antibody (Center) Blocking Peptide - Background

EHD3 plays a role in endocytic transport.

EHD3 Antibody (Center) Blocking Peptide - References

Pohl U., Smith J.S.Genomics 63:255-262(2000)George M., Ying G.BMC Cell Biol. 8:3-3(2007)Sharma M., Naslavsky N.Traffic 9:995-1018(2008)