SANTA CRUZ BIOTECHNOLOGY, INC.

EHD (F-11): sc-390514

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Eps15 homology (EH) domain-containing protein family consists of four members, EHD1, EHD2, EHD3, and EHD4. The chromosomal locations of the human EHD genes are as follows: EHD1 maps to 11q13.1, EHD2 maps to 19q13.33, EHD3 maps to 2p23.1, and EHD4 maps to 15q11.1. The encoded proteins of all EHD family members contain multiple conserved regions, which include an amino-terminal nucleotide-binding consensus site, a bipartite nuclear localization signal, and a carboxy-terminal EH protein-binding domain with an EF-hand motif. EHD1 is ubiquitously expressed with increased expression in testis. EHD2, EHD3, and EHD4 have more specific expression with EHD2 highly expressed in heart, EHD3 expressed in brain, kidney, liver, placenta, ovary, and heart, and EHD4 expressed in heart, placenta, and pancreas. The EHD proteins may participate in ligand-induced endocytosis.

REFERENCES

1. Haider, N.B., et al. 1999. Evaluation and molecular characterization of EHD1, a candidate gene for Bardet-Biedl syndrome 1 (BBS1). Gene 240: 227-232.
2. Mintz, L., et al. 1999. EHD1—an EH-domain-containing protein with a specific expression pattern. Genomics 59: 66-76.
3. Pohl, U., et al. 2000. EHD2, EHD3, and EHD4 encode novel members of a highly conserved family of EH domain-containing proteins. Genomics 63: 255-262.
4. Kuo, H.J., et al. 2001. Characterization of EHD4, an EH domain-containing protein expressed in the extracellular matrix. J. Biol. Chem. 276: 43103-43110.
5. Caplan, S., et al. 2002. A tubular EHD1-containing compartment involved in the recycling of major histocompatibility complex class I molecules to the plasma membrane. EMBO J. 21: 2557-2567.
6. Galperin, E., et al. 2002. EHD3: a protein that resides in recycling tubular and vesicular membrane structures and interacts with EHD1. Traffic 3: 575-589.

SOURCE

EHD (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 281-307 of EHD of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390514 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

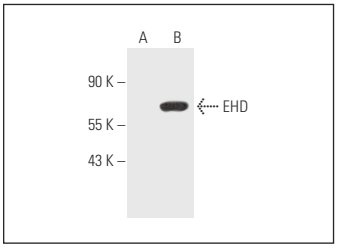
EHD (F-11) is recommended for detection of EHD1, EHD2 and EHD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EHD (F-11) is also recommended for detection of EHD1, EHD2 and EHD3 in additional species, including equine, canine, bovine, porcine and avian.

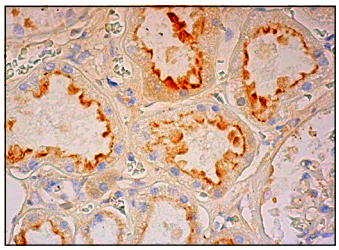
Molecular Weight of EHD: 60 kDa.

Positive Controls: EHD (m): 293T Lysate: sc-119958.

DATA



EHD (F-11): sc-390514. Western blot analysis of EHD expression in non-transfected: sc-117752 (**A**) and mouse EHD transfected: sc-119958 (**B**) 293T whole cell lysates.



EHD (F-11): sc-390514. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing apical membrane staining of cells in tubules.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.