

EHD (E-8): sc-390513



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.

SOURCE

EHD (E-8) 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EHD (E-8) is available conjugated to agarose (sc-390513 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390513 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390513 PE), fluorescein (sc-390513 FITC), Alexa Fluor® 488 (sc-390513 AF488), Alexa Fluor® 546 (sc-390513 AF546), Alexa Fluor® 594 (sc-390513 AF594) or Alexa Fluor® 647 (sc-390513 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390513 AF680) or Alexa Fluor® 790 (sc-390513 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390513 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

EHD (E-8) 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 (E-8) is also recommended for detection of EHD1, EHD2 and EHD3 in additional species, including equine, canine, bovine, porcine and avian.

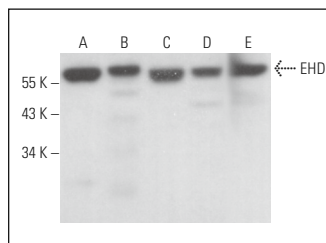
Molecular Weight of EHD: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, EOC 20 whole cell lysate: sc-364187 or Neuro-2A whole cell lysate: sc-364185.

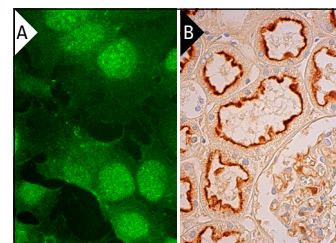
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



EHD (E-8): sc-390513. Western blot analysis of EHD expression in HeLa (A), T98G (B), Neuro-2A (C), EOC 20 (D) and C6 (E) whole cell lysates.



EHD (E-8): sc-390513. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and apical membrane staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

1. Martins-Marques, T., et al. 2020. EHD1 modulates Cx43 gap junction remodeling associated with cardiac diseases. *Circ. Res.* 126: e97-e113.
2. Ma, Y., et al. 2021. Temporal quantitative profiling of newly synthesized proteins during Aβ accumulation. *J. Proteome Res.* 20: 763-775.
3. Correa, F., et al. 2023. Actin-cytoskeleton drives caveolae signaling to mitochondria during postconditioning. *Cells* 12: 492.
4. Domingues, N., et al. 2024. Connexin43 promotes exocytosis of damaged lysosomes through actin remodelling. *EMBO J.* 43: 3627-3649.

STORAGE

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

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.