SANTA CRUZ BIOTECHNOLOGY, INC.

# EHD (E-5): sc-271658

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, EHD2 maps to 19q13.3, EHD3 maps to 2p21, 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 (E-5) is a mouse monoclonal antibody raised against amino acids 241-450 mapping within an internal region of EHD1 of human origin.

## PRODUCT

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

EHD (E-5) is available conjugated to agarose (sc-271658 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271658 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271658 PE), fluorescein (sc-271658 FITC), Alexa Fluor® 488 (sc-271658 AF488), Alexa Fluor® 546 (sc-271658 AF546), Alexa Fluor® 594 (sc-271658 AF594) or Alexa Fluor® 647 (sc-271658 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271658 AF680) or Alexa Fluor® 790 (sc-271658 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

EHD (E-5) is recommended for detection of EHD1-4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

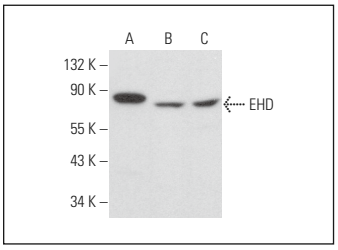
Molecular Weight of EHD: 60 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, CCRF-CEM cell lysate: sc-2225 or Caki-1 cell lysate: sc-2224.

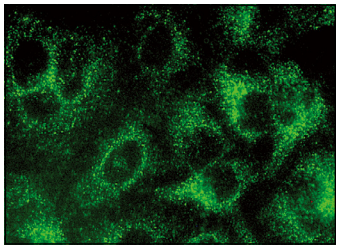
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA




EHD (E-5): sc-271658. Western blot analysis of EHD expression in RAW 264.7 (**A**), CCRF-CEM (**B**) and Caki-1 (**C**) whole cell lysates.



EHD (E-5): sc-271658. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.