

# EHD (A-20): sc-23450

## 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 19q13.3, 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

- 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.
- Mintz, L., et al. 1999. EHD1—an EH-domain-containing protein with a specific expression pattern. *Genomics* 59: 66-76.
- 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.
- 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.
- 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.
- 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 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EHD of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-23450 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

EHD (A-20) is recommended for detection of EHD1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

EHD (A-20) is also recommended for detection of EHD1, 2 and 3 in additional species, including equine, canine, bovine, porcine and avian.

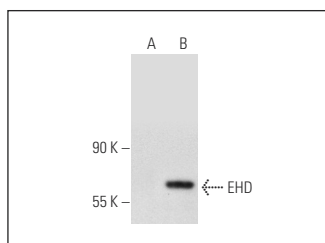
Molecular Weight of EHD: 60 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, EHD (m): 293T Lysate: sc-119958 or EHD4 (h3): 293T Lysate: sc-173519.

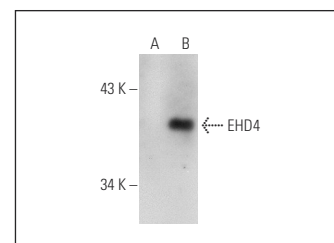
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



EHD (A-20): sc-23450. Western blot analysis of EHD expression in non-transfected: sc-117752 (A) and mouse EHD transfected: sc-119958 (B) 293T whole cell lysates.



EHD (A-20): sc-23450. Western blot analysis of EHD4 expression in non-transfected: sc-117752 (A) and human EHD4 transfected: sc-173519 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **EHD (E-8): sc-390513** or **EHD (E-5): sc-271658**, our highly recommended monoclonal alternatives to EHD (A-20).