

# EHD3 (RR-L): sc-100723



## 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 19q13.32, EHD3 maps to 2p23.1 and EHD4 maps to 15q15.1. 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.

## CHROMOSOMAL LOCATION

Genetic locus: EHD3 (human) mapping to 2p23.1; Ehd3 (mouse) mapping to 17 E2.

## SOURCE

EHD3 (RR-L) is a mouse monoclonal antibody raised against recombinant EHD3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

EHD3 (RR-L) is recommended for detection of EHD3 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), 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).

Suitable for use as control antibody for EHD3 siRNA (h): sc-40519, EHD3 siRNA (m): sc-40520, EHD3 shRNA Plasmid (h): sc-40519-SH, EHD3 shRNA Plasmid (m): sc-40520-SH, EHD3 shRNA (h) Lentiviral Particles: sc-40519-V and EHD3 shRNA (m) Lentiviral Particles: sc-40520-V.

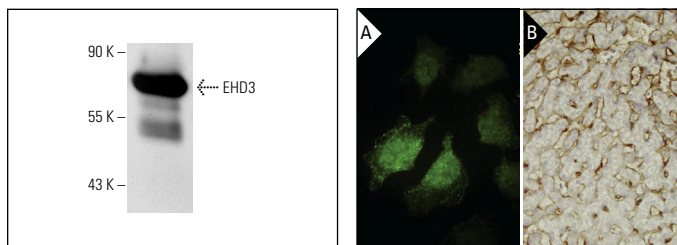
Molecular Weight of EHD3: 62 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or mouse heart extract: sc-2254.

## 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



EHD3 (RR-L): sc-100723. Western blot analysis of EHD3 expression in mouse heart tissue extract.

EHD3 (RR-L): sc-100723. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human liver tissue showing membrane localization (B).

## SELECT PRODUCT CITATIONS

- Chukkapalli, S., et al. 2014. EHD3, a regulator of vesicular trafficking, is silenced in gliomas and functions as a tumor suppressor by controlling cell cycle arrest and apoptosis. *Carcinogenesis* 35: 877-885.
- Amessou, M., et al. 2016. Spatio-temporal regulation of EGFR signaling by the Eps15 homology domain-containing protein 3 (EHD3). *Oncotarget* 7: 79203-79216.
- Zhang, L., et al. 2021. EHD3 positively regulated by NR5A1 participates in testosterone synthesis via endocytosis. *Life Sci.* 278: 119570.
- Thompson, A.D., et al. 2023. A refined protocol for the isolation and monoculture of primary mouse renal peritubular endothelial cells. *Front. Cardiovasc. Med.* 10: 1114726.

## 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](http://www.scbt.com) for detailed protocols and support products.