

# EHD4 (E-2): sc-376373

## BACKGROUND

Eps15 homology domain (EHD)-containing proteins function in the exit of receptors and other membrane proteins from the endosomal recycling compartment. EHD4 (Eps15 homology domain-containing protein 4), also known as PAST4 or Pincher, belongs to a subfamily of the EHD protein family that includes the closely related proteins EHD1, EHD2 and EHD3. EHD4 is predominantly expressed in pancreas and heart localizing to vesicular and tubular structures in the cell. It contains an EH domain as well as a calcium binding EF hand. EHD4 is believed to function in transport from the early endosome to the endocytic recycling compartment. In addition, EHD4 is capable of binding lipids via its EH domain. Loss of EHD4 can lead to retention of transferrin in peripheral compartments suggesting that EHD4 regulates the transport of transferrin out of the early endosome.

## REFERENCES

1. 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.
2. 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.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605892. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: EHD4 (human) mapping to 15q15.1; Ehd4 (mouse) mapping to 2 E5.

## SOURCE

EHD4 (E-2) is a mouse monoclonal antibody raised against amino acids 331-372 mapping within an internal region of EHD4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EHD4 (E-2) is available conjugated to agarose (sc-376373 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376373 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376373 PE), fluorescein (sc-376373 FITC), Alexa Fluor® 488 (sc-376373 AF488), Alexa Fluor® 546 (sc-376373 AF546), Alexa Fluor® 594 (sc-376373 AF594) or Alexa Fluor® 647 (sc-376373 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376373 AF680) or Alexa Fluor® 790 (sc-376373 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

EHD4 (E-2) is recommended for detection of EHD4 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).

EHD4 (E-2) is also recommended for detection of EHD4 in additional species, including equine and porcine.

Suitable for use as control antibody for EHD4 siRNA (h): sc-40521, EHD4 siRNA (m): sc-40522, EHD4 shRNA Plasmid (h): sc-40521-SH, EHD4 shRNA Plasmid (m): sc-40522-SH, EHD4 shRNA (h) Lentiviral Particles: sc-40521-V and EHD4 shRNA (m) Lentiviral Particles: sc-40522-V.

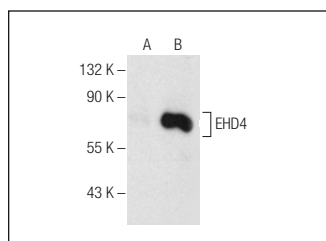
Molecular Weight of EHD4: 64 kDa.

Positive Controls: EHD4 (m2): 293T Lysate: sc-126771 or HeLa whole cell lysate: sc-2200.

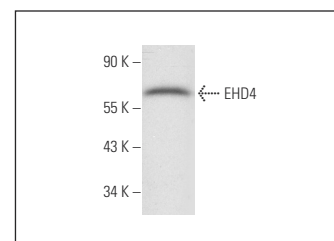
## RECOMMENDED SUPPORT REAGENTS

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



EHD4 (E-2): sc-376373. Western blot analysis of EHD4 expression in non-transfected: sc-117752 (A) and mouse EHD4 transfected: sc-126771 (B) 293T whole cell lysates.



EHD4 (E-2): sc-376373. Western blot analysis of EHD4 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Hassan, A., et al. 2019. Adolescent idiopathic scoliosis associated POC5 mutation impairs cell cycle, cilia length and centrosome protein interactions. *PLoS ONE* 14: e0213269.

## RESEARCH USE

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