

# EHD4 (H-42): sc-135035

## 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

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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/>
4. Guilherme, A., Soriano, N.A., Furciniti, P.S. and Czech, M.P. 2004. Role of EHD1 and EHBP1 in perinuclear sorting and insulin-regulated GLUT4 recycling in 3T3-L1 adipocytes. *J. Biol. Chem.* 279: 40062-40075.
5. Smith, C.A., Dho, S.E., Donaldson, J., Tepass, U. and McGlade, C.J. 2004. The cell fate determinant numb interacts with EHD/Rme-1 family proteins and has a role in endocytic recycling. *Mol. Biol. Cell* 15: 3698-3708.

## CHROMOSOMAL LOCATION

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

## SOURCE

EHD4 (H-42) is a rabbit polyclonal antibody raised against amino acids 331-372 mapping within an internal region of EHD4 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.

## STORAGE

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

## APPLICATIONS

EHD4 (H-42) is recommended for detection of EHD4 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).

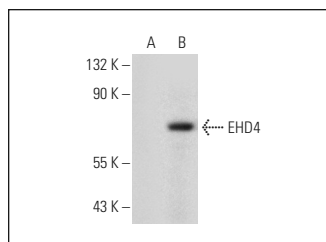
EHD4 (H-42) is also recommended for detection of EHD4 in additional species, including equine, canine, bovine and porcine.

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 (h3): 293T Lysate: sc-173519 or HeLa nuclear extract: sc-2120.

## DATA



EHD4 (H-42): sc-135035. 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **EHD4 (E-2): sc-376373**, our highly recommended monoclonal alternative to EHD4 (H-42).