SANTA CRUZ BIOTECHNOLOGY, INC.

# FHOD1 (B-6): sc-365433

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

The limb deformity (ld) locus influences normal limb development and gives rise to alternative mRNAs that can translate into a family of protein products known as formins. Formins play a crucial role in cytoskeletal reorganization by influencing Actin filament assembly. The temporal genetic hierarchy influencing normal limb development can deregulate and mediate mammalian developmental syndromes. FHOD1 induces the formation of and associates with bundled Actin stress fibers in response to the activity of the Rho-ROCK cascade. It influences several cellular activities including cell migration, cyto-skeletal arrangement, signal transduction and gene expression.

## REFERENCES


1. Maas, R.L., et al. 1991. A human gene homologous to the formin gene residing at the murine limb deformity locus: chromosomal location and RFLPs. Am. J. Hum. Genet. 48: 687-695.
2. Wynshaw-Boris, A., et al. 1997. The role of a single formin isoform in the limb and renal phenotypes of limb deformity. Mol. Med. 3: 372-384.
3. Leader, B. and Leder, P. 2000. Formin 2, a novel formin homology protein of the cappuccino subfamily, is highly expressed in the developing and adult central nervous system. Mech. Dev. 93: 221-231.
4. O'Rourke, D.A., et al. 2000. Hepatocyte growth factor induces MAPK-dependent formin IV translocation in renal epithelial cells. J. Am. Soc. Nephrol. 11: 2212-2221.
5. Tanaka, K. 2000. Formin family proteins in cytoskeletal control. Biochem. Biophys. Res. Commun. 267: 479-481.
6. Sawin, K.E. 2002. Cell polarity: following formin function. Curr. Biol. 12: R6-R8.
7. Westendorf, J.J. and Koka, S. 2004. Identification of FHOD1-binding proteins and mechanisms of FHOD1-regulated Actin dynamics. J. Cell. Biochem. 92: 29-41.
8. Gasteier, J.E., et al. 2005. FHOD1 coordinates Actin filament and microtubule alignment to mediate cell elongation. Exp. Cell Res. 306: 192-202.


## CHROMOSOMAL LOCATION

Genetic locus: FHOD1 (human) mapping to 16q22.1.

## SOURCE

FHOD1 (B-6) is a mouse monoclonal antibody raised against amino acids 34-110 mapping near the N-terminus of FHOD1 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.

## STORAGE

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

## APPLICATIONS

FHOD1 (B-6) is recommended for detection of FHOD1 of 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).

Suitable for use as control antibody for FHOD1 siRNA (h): sc-60635, FHOD1 shRNA Plasmid (h): sc-60635-SH and FHOD1 shRNA (h) Lentiviral Particles: sc-60635-V.

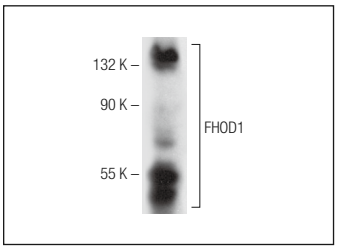
Molecular Weight of FHOD1: 128 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

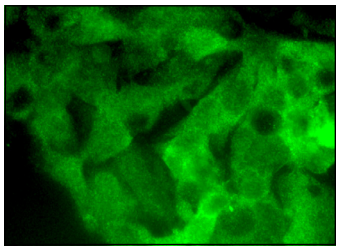
## RECOMMENDED SUPPORT REAGENTS

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




FHOD1 (B-6): sc-365433. Western blot analysis of FHOD1 expression in K-562 whole cell lysate.



FHOD1 (B-6): sc-365433. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic and nuclear localization.

## 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.