

FHOD3 (K-19): sc-68664

BACKGROUND

FHOD3 (formin homology 2 domain containing 3), also known as FHOS2 or KIAA1695, is a 1,422 amino acid protein that localizes to both the cytoplasm and the cytoskeleton and contains one DAD domain, one FH1 domain, one FH2 domain and one GBD/FH3 domain. Expressed in brain, heart and kidney, FHOD3 interacts with intermediate filaments and functions as an actin-organizing protein that is thought to promote the formation of stress fibers in conjunction with cellular elongation. Multiple isoforms of FHOD3 exist due to alternative splicing events. The gene encoding FHOD3 maps to human chromosome 18, which houses over 300 protein-coding genes and contains nearly 76 million bases. There are a variety of diseases associated with defects in chromosome 18-localized genes, some of which include trisomy 18 (also known as Edwards syndrome), Niemann-Pick disease, hereditary hemorrhagic telangiectasia, erythropoietic protoporphyria and follicular lymphomas.

REFERENCES

1. Carstea, E.D., Polymeropoulos, M.H., Parker, C.C., Detera-Wadleigh, S.D., O'Neill, R.R., Patterson, M.C., Goldin, E., Xiao, H., Straub, R.E. and Vanier, M.T. 1993. Linkage of Niemann-Pick disease type C to human chromosome 18. *Proc. Natl. Acad. Sci. USA* 90: 2002-2004.
2. Prasad, S., Soldatenkov, V.A., Srinivasarao, G. and Dritschilo, A. 1999. Intermediate filament proteins during carcinogenesis and apoptosis (review). *Int. J. Oncol.* 14: 563-570.
3. Nagase, T., Kikuno, R., Hattori, A., Kondo, Y., Okumura, K. and Ohara, O. 2000. Prediction of the coding sequences of unidentified human genes. XIX. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 7: 347-355.
4. Katoh, M. and Katoh, M. 2004. Identification and characterization of human FHOD3 gene *in silico*. *Int. J. Mol. Med.* 13: 615-620.
5. Kanaya, H., Takeya, R., Takeuchi, K., Watanabe, N., Jing, N. and Sumimoto, H. 2005. FHOS2, a novel formin-related actin-organizing protein, probably associates with the nestin intermediate filament. *Genes Cells* 10: 665-678.
6. Higgs, H.N. 2005. Formin proteins: a domain-based approach. *Trends Biochem. Sci.* 30: 342-353.
7. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609691. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: FHOD3 (human) mapping to 18q12.2; Fhod3 (mouse) mapping to 18 A2.

SOURCE

FHOD3 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FHOD3 of human origin.

STORAGE

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

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-68664 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FHOD3 (K-19) is recommended for detection of FHOD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

FHOD3 (K-19) is also recommended for detection of FHOD3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FHOD3 siRNA (h): sc-75015, FHOD3 siRNA (m): sc-75016, FHOD3 shRNA Plasmid (h): sc-75015-SH, FHOD3 shRNA Plasmid (m): sc-75016-SH, FHOD3 shRNA (h) Lentiviral Particles: sc-75015-V and FHOD3 shRNA (m) Lentiviral Particles: sc-75016-V.

Molecular Weight of FHOD3: 159 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **FHOD3 (G-5): sc-374601**, our highly recommended monoclonal alternative to FHOD3 (K-19).