

# PLEKHF2 (C-17): sc-87358

## BACKGROUND

PLEKHF2 (Pleckstrin homology domain-containing family F member 2), also known as Phafin-2 and zinc finger FYVE domain-containing protein 18 (ZFYE18), is a 249 amino acid protein that contains an N-terminal PH domain and a C-terminal FYVE-type domain. The PH (Pleckstrin homology) domain is found in proteins that are involved in intracellular signaling and the FYVE domain is a zinc finger that binds two zinc ions. Some FYVE domains are capable of specifically binding to phosphatidylinositol 3-phosphate in lipid bilayers, suggesting that such proteins may be involved in regulating membrane traffic. PLEKHF2 is a member of the Phafin (protein containing both PH and FYVE domains) protein family. Other Phafins, such as PLEKHF1, induce caspase-independent apoptosis and increase cell sensitivity to TNF $\alpha$ -induced apoptosis through their PH and FYVE domains.

## REFERENCES

1. Haslam, R.J., et al. 1993. Pleckstrin domain homology. *Nature* 363: 309-310.
2. Ingley, E., et al. 1994. Pleckstrin homology (PH) domains in signal transduction. *J. Cell. Biochem.* 56: 436-443.
3. Sankaran, V.G., et al. 2001. High-affinity binding of a FYVE domain to phosphatidylinositol 3-phosphate requires intact phospholipid but not FYVE domain oligomerization. *Biochemistry* 40: 8581-8587.
4. Laity, J.H., et al. 2001. Zinc-finger proteins: new insights into structural and functional diversity. *Curr. Opin. Struct. Biol.* 11: 39-46.
5. Ridley, S.H., et al. 2001. FENS-1 and DFPC1 are FYVE domain-containing proteins with distinct functions in the endosomal and Golgi compartments. *J. Cell. Sci.* 114: 3991-4000.

## CHROMOSOMAL LOCATION

Genetic locus: PLEKHF2 (human) mapping to 8q22.1; Plekhf2 (mouse) mapping to 4 A1.

## SOURCE

PLEKHF2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PLEKHF2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87358 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

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

## APPLICATIONS

PLEKHF2 (C-17) is recommended for detection of PLEKHF2 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).

PLEKHF2 (C-17) is also recommended for detection of PLEKHF2 in additional species, including canine and bovine.

Suitable for use as control antibody for PLEKHF2 siRNA (h): sc-77773, PLEKHF2 siRNA (m): sc-152310, PLEKHF2 shRNA Plasmid (h): sc-77773-SH, PLEKHF2 shRNA Plasmid (m): sc-152310-SH, PLEKHF2 shRNA (h) Lentiviral Particles: sc-77773-V and PLEKHF2 shRNA (m) Lentiviral Particles: sc-152310-V.

Molecular Weight of PLEKHF2: 28 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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