

# FAPP2 (N-14): sc-162817

## BACKGROUND

The members of the phosphatidylinositol kinase (PIK) superfamily can be divided into three groups based on their substrate specificity. PIKs convert phosphatidylinositol (PI) into PI phosphate [PI(3)P], PI phosphate [PI(4)P], PI bisphosphate [PI(4,5)P<sub>2</sub>] and PI triphosphate [PI(3,4,5)P<sub>3</sub>]. Phosphatidylinositides represent important regulatory molecules and are involved in a diverse array of signaling pathways. The phosphatidylinositol-four-phosphate adapter proteins, FAPP1, also designated Pleckstrin homology domain-containing family A member 3 (PLEKHA3), and FAPP2, also designated Pleckstrin homology domain-containing family A member 8 (PLEKHA8), interact with PI(4)P to mediate transport between the *trans*-Golgi network and plasma membrane.

## REFERENCES

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- Balla, A., et al. 2005. A plasma membrane pool of phosphatidylinositol 4-phosphate is generated by phosphatidylinositol 4-kinase type-III  $\alpha$ : studies with the PH domains of the oxysterol binding protein and FAPP1. *Mol. Biol. Cell* 16: 1282-1295.
- Yui, N., et al. 2009. FAPP2 is required for aquaporin-2 apical sorting at *trans*-Golgi network in polarized MDCK cells. *Am. J. Physiol., Cell Physiol.* 297: C1389-C1396.
- Tritz, R., et al. 2009. FAPP2 gene downregulation increases tumor cell sensitivity to Fas-induced apoptosis. *Biochem. Biophys. Res. Commun.* 383: 167-171.
- Cao, X., et al. 2009. Golgi protein FAPP2 tubulates membranes. *Proc. Natl. Acad. Sci. USA* 106: 21121-21125.
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## CHROMOSOMAL LOCATION

Genetic locus: PLEKHA8 (human) mapping to 7p14.3; Plekha8 (mouse) mapping to 6 B3.

## SOURCE

FAPP2 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FAPP2 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-162817 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

FAPP2 (N-14) is recommended for detection of FAPP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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); may cross-react with FAPP1.

FAPP2 (N-14) is also recommended for detection of FAPP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FAPP2 siRNA (h): sc-89337, FAPP2 siRNA (m): sc-145069, FAPP2 shRNA Plasmid (h): sc-89337-SH, FAPP2 shRNA Plasmid (m): sc-145069-SH, FAPP2 shRNA (h) Lentiviral Particles: sc-89337-V and FAPP2 shRNA (m) Lentiviral Particles: sc-145069-V.

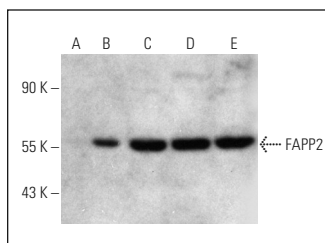
Molecular Weight of FAPP2 isoforms: 58/51/49 kDa.

Positive Controls: FAPP2 (h2): 293T Lysate: sc-172696, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

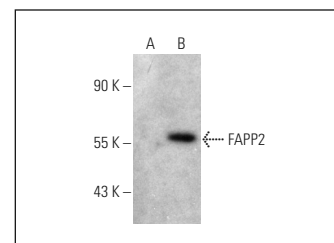
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



FAPP2 (N-14): sc-162817. Western blot analysis of FAPP2 expression in non-transfected 293T: sc-117752 (A), and human FAPP2 transfected 293T: sc-172696 (B), MCF7 (C), HeLa (D) and SH-SY5Y (E) whole cell lysates.



FAPP2 (N-14): sc-162817. Western blot analysis of FAPP2 expression in non-transfected: sc-117752 (A) and human FAPP2 transfected: sc-172461 (B) 293T whole cell lysates.

## STORAGE

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

## RESEARCH USE

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