

FAM109B (F-7): sc-390442

BACKGROUND

FAM109B, also known as IPIP27B (27 kDa inositol polyphosphate phosphatase interacting protein B), Sesquipedalian-2 or Ses2, is a 259 amino acid protein belonging to the sesquipedalian family and containing one PH domain, one coiled coil, and one F&H motif. FAM109B is localized to the early and recycling endosomes, the *trans*-Golgi network and macropinosomes, but is not found in late endosomes or lysosomes. FAM109B forms homodimers and heterodimers with FAM109A, and both FAM109B and FAM109A bind to the C-terminal region of the inositol polyphosphate 5-phosphatases OCRL1 and Inpp5b. Defects in the interaction of FAM109A and B with OCRL1 and Inpp5b is thought to play a role in the pathology of Lowe syndrome, characterized by ocular, renal and nervous system defects, and type 2 Dent disease, characterized by renal defects.

REFERENCES

1. Dunham, I., et al. 1999. The DNA sequence of human chromosome 22. *Nature* 402: 489-495.
2. Collins, J.E., et al. 2004. A genome annotation-driven approach to cloning the human ORFeome. *Genome Biol.* 5: R84.
3. Barbe, L., et al. 2008. Toward a confocal subcellular atlas of the human proteome. *Mol. Cell. Proteomics* 7: 499-508.
4. Swan, L.E., et al. 2010. Two closely related endocytic proteins that share a common OCRL-binding motif with APPL1. *Proc. Natl. Acad. Sci. USA* 107: 3511-3516.
5. Noakes, C.J., et al. 2011. The PH domain proteins IPIP27A and B link OCRL1 to receptor recycling in the endocytic pathway. *Mol. Biol. Cell* 22: 606-623.
6. 2014. Biological insights from 108 schizophrenia-associated genetic loci. *Nature* 511: 421-427.

CHROMOSOMAL LOCATION

Genetic locus: FAM109B (human) mapping to 22q13.2; Fam109b (mouse) mapping to 15 E1.

SOURCE

FAM109B (F-7) is a mouse monoclonal antibody raised against amino acids 66-120 mapping within an internal region of FAM109B of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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.

PROTOCOLS

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

APPLICATIONS

FAM109B (F-7) is recommended for detection of FAM109B of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (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 FAM109B siRNA (h): sc-77296, FAM109B siRNA (m): sc-141943, FAM109B shRNA Plasmid (h): sc-77296-SH, FAM109B shRNA Plasmid (m): sc-141943-SH, FAM109B shRNA (h) Lentiviral Particles: sc-77296-V and FAM109B shRNA (m) Lentiviral Particles: sc-141943-V.

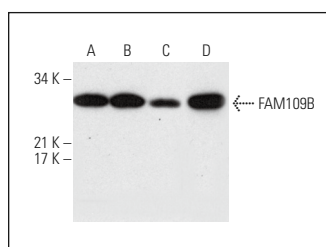
Molecular Weight of FAM109B: 28 kDa.

Positive Controls: human heart extract: sc-363763, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

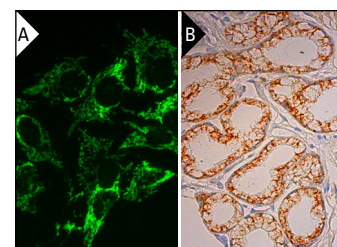
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FAM109B (F-7): sc-390442. Western blot analysis of FAM109B expression in K-562 (A), HeLa (B) and MCF7 (C) whole cell lysates and human heart tissue extract (D).



FAM109B (F-7): sc-390442. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic vesicle localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (B).

RESEARCH USE

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