

FAM109B (D-2): sc-377483

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

- Dunham, I., et al. 1999. The DNA sequence of human chromosome 22. *Nature* 402: 489-495.
- Collins, J.E., et al. 2004. A genome annotation-driven approach to cloning the human ORFeome. *Genome Biol.* 5: R84.
- Barbe, L., et al. 2008. Toward a confocal subcellular atlas of the human proteome. *Mol. Cell. Proteomics* 7: 499-508.
- 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.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: PHETA2 (human) mapping to 22q13.2; Pheta2 (mouse) mapping to 15 E1.

SOURCE

FAM109B (D-2) 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 IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FAM109B (D-2) is available conjugated to agarose (sc-377483 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377483 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377483 PE), fluorescein (sc-377483 FITC), Alexa Fluor® 488 (sc-377483 AF488), Alexa Fluor® 546 (sc-377483 AF546), Alexa Fluor® 594 (sc-377483 AF594) or Alexa Fluor® 647 (sc-377483 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377483 AF680) or Alexa Fluor® 790 (sc-377483 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FAM109B (D-2) 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) 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.

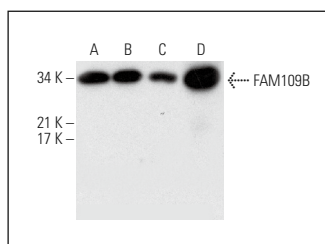
Molecular Weight of FAM109B: 28 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

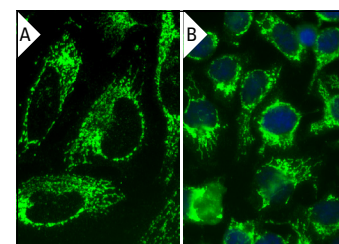
RECOMMENDED SUPPORT REAGENTS

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



FAM109B (D-2): sc-377483. 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 (D-2): sc-377483. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic vesicles localization (A). Immunofluorescence staining of formalin-fixed HeLa cells showing cytoplasmic vesicles localization. Note DAPI nuclear counterstain from UltraCruz® Hard-set Mounting Medium: sc-24941 (B).

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.