

FGD1 (C-18): sc-8486

BACKGROUND

FGD1 gene mutations result in faciogenital dysplasia (FGDY, Aarskog syndrome), an X-linked developmental disorder that adversely affects the formation of multiple skeletal structures. FGD1 maps to human chromosome Xp11.21 and shares a high degree of sequence identity with the 82 kDa FGD2 (6p21.2) and the 81 kDa FGD3 (9q22) proteins. FGD1 encodes a guanine nucleotide exchange factor that specifically activates the Rho GTPase Cdc42. FGD2 is present in several diverse tissues during embryogenesis, suggesting a role in embryonic development. FGD3 stimulates fibroblasts to form filopodia, which are actin microspikes formed upon the stimulation of Cdc42. All FGD family members contain equivalent signaling domains and a conserved structural organization, which strongly suggests that these signaling domains form a canonical core structure for members of the FGD family of RhoGEF proteins. These proteins control essential signals required during embryonic development.

REFERENCES

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2. Sarnow, P., et al. 1982. Adenovirus Elb-58 kd tumor antigen and SV40 large tumor antigen are physically associated with the same 54 kd cellular protein in transformed cells. *Cell* 28: 387-394.
3. Werness, B.A., et al. 1990. Association of human papillomavirus types 16 and 18 E6 proteins with p53. *Science* 248: 76-79.
4. Kern, S.E., et al. 1990. Oncogenic forms of p53 inhibit p53-regulated gene expression. *Science* 256: 827-830.
5. Malkin, D., et al. 1990. Germ line p53 mutations in a familial syndrome of breast cancer, sarcomas, and other neoplasms. *Science* 250: 1233-1238.
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CHROMOSOMAL LOCATION

Genetic locus: FGD1 (human) mapping to Xp11.21; Fgd1 (mouse) mapping to X F3.

SOURCE

FGD1 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FGD1 of human origin.

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-8486 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FGD1 (C-18) is recommended for detection of FGD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 FGD1 siRNA (h): sc-41711, FGD1 siRNA (m): sc-41712, FGD1 shRNA Plasmid (h): sc-41711-SH, FGD1 shRNA Plasmid (m): sc-41712-SH, FGD1 shRNA (h) Lentiviral Particles: sc-41711-V and FGD1 shRNA (m) Lentiviral Particles: sc-41712-V.

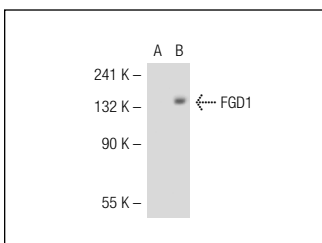
Molecular Weight of FGD1: 107 kDa.

Positive Controls: FGD1 (h): 293T Lysate: sc-113935.

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



FGD1 (C-18): sc-8486. Western blot analysis of FGD1 expression in non-transfected: sc-117752 (A) and human FGD1 transfected: sc-113935 (B) 293T whole cell lysates.

RESEARCH USE

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

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Try **FGD1 (E-10): sc-374389**, our highly recommended monoclonal alternative to FGD1 (C-18).