

FGD3 (h2): 293T Lysate: sc-114923

BACKGROUND

FGD1 gene mutations result in faciogenital dysplasia (FGDY, Aarskog-Scott 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 FGD2 (6p21.2) and the FGD3 (9q22.31) 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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5. Whitehead, I.P., Abe, K., Gorski, J.L. and Der, C.J. 1998. Cdc42 and FGD1 cause distinct signaling and transforming activities. *Mol. Cell. Biol.* 18: 4689-4697.
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CHROMOSOMAL LOCATION

Genetic locus: FGD3 (human) mapping to 9q22.31.

PRODUCT

FGD3 (h2): 293T Lysate represents a lysate of human FGD3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

FGD3 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive FGD3 antibodies. Recommended use: 10-20 µl per lane.

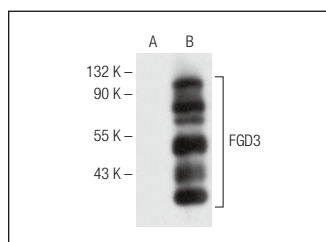
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

FGD3 (D-3): sc-376120 is recommended as a positive control antibody for Western Blot analysis of enhanced human FGD3 expression in FGD3 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

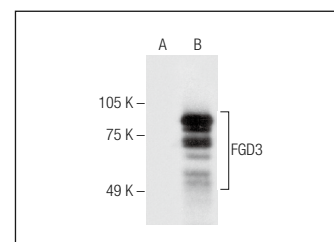
RECOMMENDED SUPPORT REAGENTS

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.

DATA



FGD3 (D-3): sc-376120. Western blot analysis of FGD3 expression in non-transfected: sc-117752 (A) and human FGD3 transfected: sc-114923 (B) 293T whole cell lysates.



FGD3 (G-12): sc-390204. Western blot analysis of FGD3 expression in non-transfected: sc-117752 (A) and human FGD3 transfected: sc-114923 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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