SANTA CRUZ BIOTECHNOLOGY, INC.

FGD1 (h): 293T Lysate: sc-113935

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 Xp11.22 and shares a high degree of sequence identity with the FGD2 (6p21.2) and the 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 micro-spikes 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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3. Olson, M.F., Pasteris, N.G., Gorski, J.L. and Hall, A. 1996. Faciogenital dysplasia protein (FGD1) and Vav, two related proteins required for normal embryonic development, are upstream regulators of Rho GTPases. Curr. Biol. 6: 1628-1633.
4. Pasteris, N.G., Buckler, J., Cadle, A.B. and Gorski, J.L. 1997. Genomic organization of the faciogenital dysplasia (FGD1; Aarskog syndrome) gene. Genomics 43: 390-394.
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6. Pasteris, N.G. and Gorski, J.L. 1999. Isolation, characterization, and mapping of the mouse and human FGD2 genes, faciogenital dysplasia (FGD1; Aarskog syndrome) gene homologues. Genomics 60: 57-66.
7. Pasteris, N.G., Nagata, K., Hall, A. and Gorski, J.L. 2000. Isolation, characterization, and mapping of the mouse FGD3 gene, a new faciogenital dysplasia (FGD1; Aarskog syndrome) gene homologue. Gene 242: 237-247.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: FGD1 (human) mapping to Xp11.22.

PRODUCT

FGD1 (h): 293T Lysate represents a lysate of human FGD1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

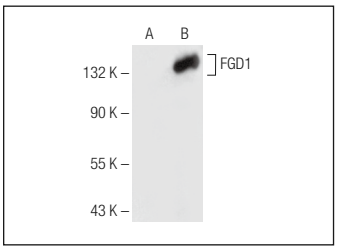
APPLICATIONS

FGD1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive FGD1 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-tranfected 293T cells.

FGD1 (E-10): sc-374389 is recommended as a positive control antibody for Western Blot analysis of enhanced human FGD1 expression in FGD1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



FGD1 (E-10): sc-374389. 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.