**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**


**CHROMOSOMAL LOCATION**

Genetic locus: FGD1 (human) mapping to Xp11.22; Fgd1 (mouse) mapping to X F3.

**SOURCE**

FGD1 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 71-107 near the N-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-374389 P, (100 µg peptide in 0.5 ml PBS containing <0.1% sodium azide and 0.2% stabilizer protein).

**STORAGE**

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

**APPLICATIONS**

FGD1 (E-10) is recommended for detection of FGD1 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).

FGD1 (E-10) is also recommended for detection of FGD1 in additional species, including equine, canine, bovine and porcine.

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.

**DATA**

**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.