SANTA CRUZ BIOTECHNOLOGY, INC.

Fascin 2 (G-12): sc-515233

BACKGROUND

Cell adhesion to extracellular matrix is an important physiological stimulus for organization of the Actin-based cytoskeleton. Adhesion to the matrix glycoprotein thrombospondin-1 triggers the sustained formation of F-Actin microspikes that contain the Actin-bundling protein fascin. These structures are also implicated in cell migration, which may be an important function of thrombospondin-1 in tissue remodelling and wound repair. Fascin bundles actin microfilaments within dynamic cellular structures such as microspikes, stress fibers and membrane ruffles. Fascin could serve as a prognostic factor for abnormal ovarian epithelial pathology and could be a novel target for the treatment of ovarian cancer. Fascin, an Actin-bundling protein, identifies dendritic cells in the blood and in tissues. Fascin 2 is involved in photoreceptor cell-specific events. Fascin 2 localizes to the inner and outer segments of the photoreceptor cells in the retina.

REFERENCES

1. Bardien-Kruger, S., et al. 1999. Refinement of the RP17 locus for autosomal dominant retinitis pigmentosa, construction of a YAC contig and investigation of the candidate gene retinal Fascin. Eur. J. Hum. Genet. 7: 332-338.
2. Adams, J.C. and Schwartz, M.A. 2000. Stimulation of Fascin spikes by thrombospondin-1 is mediated by the GTPases Rac and Cdc42. J. Cell Biol. 150: 807-822.
3. Saishin, Y., et al. 2000. Retinal Fascin: functional nature, subcellular distribution, and chromosomal localization. Invest. Ophthalmol. Vis. Sci. 41: 2087-2095.
4. Tubb, B.E., et al. 2000. Characterization of human retinal Fascin gene (FSCN2) at 17q25: close physical linkage of Fascin and cytoplasmic Actin genes. Genomics 65: 146-156.

CHROMOSOMAL LOCATION

Genetic locus: FSCN2 (human) mapping to 17q25.3; Fscn2 (mouse) mapping to 11 E2.

SOURCE

Fascin 2 (G-12) is a mouse monoclonal antibody raised against amino acids 380-492 mapping at the C-terminus of Fascin 2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fascin 2 (G-12) is available conjugated to agarose (sc-515233 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515233 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515233 PE), fluorescein (sc-515233 FITC), Alexa Fluor® 488 (sc-515233 AF488), Alexa Fluor® 546 (sc-515233 AF546), Alexa Fluor® 594 (sc-515233 AF594) or Alexa Fluor® 647 (sc-515233 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515233 AF680) or Alexa Fluor® 790 (sc-515233 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Fascin 2 (G-12) is recommended for detection of Fascin 2 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 Fascin 2 siRNA (h): sc-44615, Fascin 2 siRNA (m): sc-44616, Fascin 2 shRNA Plasmid (h): sc-44615-SH, Fascin 2 shRNA Plasmid (m): sc-44616-SH, Fascin 2 shRNA (h) Lentiviral Particles: sc-44615-V and Fascin 2 shRNA (m) Lentiviral Particles: sc-44616-V.

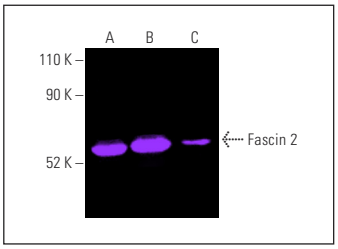
Molecular Weight of Fascin 2: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Neuro-2A whole cell lysate: sc-364185 or human eye extract: sc-364223.

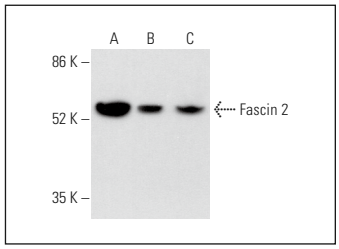
RECOMMENDED SUPPORT REAGENTS

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



Fascin 2 (G-12): sc-515233. Fluorescent western blot analysis of Fascin 2 expression in NIH/3T3 (**A**) and Neuro-2A (**B**) whole cell lysates and human eye tissue extract (**C**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 555: sc-516177.



Fascin 2 (G-12): sc-515233. Western blot analysis of Fascin 2 expression in IMR-32 (**A**), NIH/3T3 (**B**) and Neuro-2A (**C**) whole cell lysates.

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.