SANTA CRUZ BIOTECHNOLOGY, INC.

FMNL1 (A-4): sc-390466

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Formin-like protein 1 (FMNL1, formin-related protein, Frl) is a 1,094 amino acid protein encoded by the mouse gene Fmnl1. FMNL1 belongs to the formin homology family and has one DAD (diaphanous autoregulatory domain), one FH2 (formin homology 2) domain, and one GBD/FH3 (Rho GTPase-binding/ formin homology 3) domain. Formins are a conserved class of proteins expressed in all eukaryotes, with known roles in generating cellular Actin-based structures. FMNL1 is believed to play a role in the control of cell motility and survival of macrophages. FMNL1 has been found to interact with Rac 1, PFN1 and PFN2 and can block apoptotic cell death and inhibit cell adhesion and migration. FMNL1 is located in the cytoplasm and is highly expressed in the spleen, lymph nodes and bone marrow cells.

CHROMOSOMAL LOCATION

Genetic locus: FMNL1 (human) mapping to 17q21.31; Fmnl1 (mouse) mapping to 11 E1.

SOURCE

FMNL1 (A-4) is a mouse monoclonal antibody raised against amino acids 161-220 mapping within an internal region of FMNL1 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.

FMNL1 (A-4) is available conjugated to agarose (sc-390466 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390466 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390466 PE), fluorescein (sc-390466 FITC), Alexa Fluor® 488 (sc-390466 AF488), Alexa Fluor® 546 (sc-390466 AF546), Alexa Fluor® 594 (sc-390466 AF594) or Alexa Fluor® 647 (sc-390466 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390466 AF680) or Alexa Fluor® 790 (sc-390466 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

FMNL1 (A-4) is recommended for detection of FMNL1 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 FMNL1 siRNA (h): sc-62325, FMNL1 siRNA (m): sc-62326, FMNL1 shRNA Plasmid (h): sc-62325-SH, FMNL1 shRNA Plasmid (m): sc-62326-SH, FMNL1 shRNA (h) Lentiviral Particles: sc-62325-V and FMNL1 shRNA (m) Lentiviral Particles: sc-62326-V.

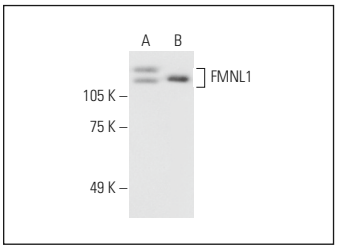
Molecular Weight of FMNL1: 160 kDa.

Positive Controls: SUP-T1 whole cell lysate: sc-364796, HuT 78 whole cell lysate: sc-2208 or Jurkat whole cell lysate: sc-2204.

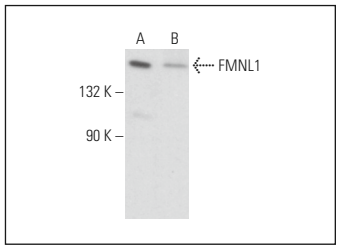
RECOMMENDED SUPPORT REAGENTS

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



FMNL1 (A-4): sc-390466. Western blot analysis of FMNL1 expression in HuT 78 (**A**) and Jurkat (**B**) whole cell lysates.



FMNL1 (A-4): sc-390466. Western blot analysis of FMNL1 expression in SUP-T1 (**A**) and HeLa (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Thompson, S.B., et al. 2020. Formin-like 1 mediates effector T cell trafficking to inflammatory sites to enable T cell-mediated autoimmunity. Elife 9: e58046.
2. Bello-Gamboa, A., et al. 2020. Actin reorganization at the centrosomal area and the immune synapse regulates polarized secretory traffic of multivesicular bodies in T lymphocytes. J. Extracell. Vesicles 9: 1759926.
3. Ivanov, S.S., et al. 2021. *Neisseria gonorrhoeae* subverts formin-dependent actin polymerization to colonize human macrophages. PLoS Pathog. 17: e1010184.
4. Belliveau, N.M., et al. 2023. Whole-genome screens reveal regulators of differentiation state and context-dependent migration in human neutrophils. Nat. Commun. 14: 5770.

STORAGE

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

PROTOCOLS

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