

FMNL1 (h): 293T Lysate: sc-113684

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.

REFERENCES

1. Yayoshi-Yamamoto, S., Taniuchi, I. and Watanabe, T. 2000. FRL, a novel formin-related protein, binds to Rac and regulates cell motility and survival of macrophages. *Mol. Cell. Biol.* 20: 6872-6881.
2. Katoh, M. and Katoh, M. 2003. Identification and characterization of human FMNL1, FMNL2 and FMNL3 genes in silico. *Int. J. Oncol.* 22: 1161-1168.
3. Katoh, M. and Katoh, M. 2004. Identification and characterization of the human FMNL1 gene in silico. *Int. J. Mol. Med.* 14: 121-126.
4. Harris, E.S., Li, F. and Higgs, H.N. 2004. The mouse formin, FRLa, slows Actin filament barbed end elongation, competes with capping protein, accelerates polymerization from monomers, and severs filaments. *J. Biol. Chem.* 279: 20076-20087.
5. Favaro, P.M., Traina, F., Vassallo, J., Brousset, P., Delsol, G., Costa, F.F. and Saad, S.T. 2006. High expression of FMNL1 protein in T non-Hodgkin's lymphomas. *Leuk. Res.* 30: 735-738.
6. Schwartzberg, P.L. 2007. Formin the way. *Immunity* 26: 139-141.
7. Gomez, T.S., Kumar, K., Medeiros, R.B., Shimizu, Y., Leibson, P.J. and Billadeau, D.D. 2007. Formins regulate the actin-related protein 2/3 complex-independent polarization of the centrosome to the immunological synapse. *Immunity* 26: 177-190.

CHROMOSOMAL LOCATION

Genetic locus: FMNL1 (human) mapping to 17q21.31.

PRODUCT

FMNL1 (h): 293T Lysate represents a lysate of human FMNL1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

FMNL1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive FMNL1 antibodies. Recommended use: 10-20 µl per lane.

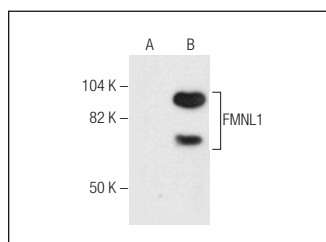
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

FMNL1 (D-9): sc-390069 is recommended as a positive control antibody for Western Blot analysis of enhanced human FMNL1 expression in FMNL1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

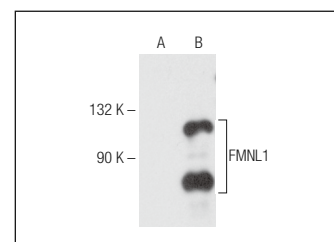
RECOMMENDED SUPPORT REAGENTS

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



FMNL1 (D-9): sc-390069. Western blot analysis of FMNL1 expression in non-transfected: sc-117752 (A) and human FMNL1 transfected: sc-113684 (B) 293T whole cell lysates.



FMNL1 (C-5): sc-390023. Western blot analysis of FMNL1 expression in non-transfected: sc-117752 (A) and human FMNL1 transfected: sc-113684 (B) 293T whole cell lysates.

RESEARCH USE

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