

FMNL2 (D-3): sc-390298

BACKGROUND

Formin-like protein 2 (FMNL2, formin homology 2 domain-containing protein 2, FHOD2) is a 1,087 amino acid protein encoded by the human gene FMNL2. FMNL2 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. Formin-related proteins have been implicated in morphogenesis, cytokinesis, and cell polarity. FMNL2 is believed to play a role in the control of cell motility and survival of macrophages.

CHROMOSOMAL LOCATION

Genetic locus: FMNL2 (human) mapping to 2q23.3; Fmnl2 (mouse) mapping to 2 C1.1.

SOURCE

FMNL2 (D-3) is a mouse monoclonal antibody raised against amino acids 461-505 mapping within an internal region of FMNL2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FMNL2 (D-3) is available conjugated to agarose (sc-390298 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390298 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390298 PE), fluorescein (sc-390298 FITC), Alexa Fluor® 488 (sc-390298 AF488), Alexa Fluor® 546 (sc-390298 AF546), Alexa Fluor® 594 (sc-390298 AF594) or Alexa Fluor® 647 (sc-390298 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390298 AF680) or Alexa Fluor® 790 (sc-390298 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

FMNL2 (D-3) is recommended for detection of FMNL2 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), immunohistochemistry (including paraffin-embedded sections) (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 FMNL2 siRNA (h): sc-62327, FMNL2 siRNA (m): sc-62328, FMNL2 shRNA Plasmid (h): sc-62327-SH, FMNL2 shRNA Plasmid (m): sc-62328-SH, FMNL2 shRNA (h) Lentiviral Particles: sc-62327-V and FMNL2 shRNA (m) Lentiviral Particles: sc-62328-V.

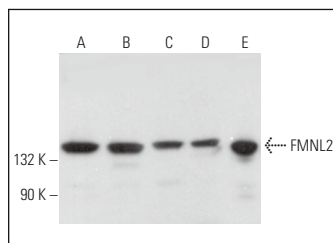
Molecular Weight of FMNL2: 123 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, MDA-MB-435S whole cell lysate: sc-364184 or Neuro-2A whole cell lysate: sc-364185.

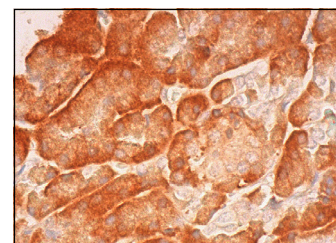
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FMNL2 (D-3): sc-390298. Western blot analysis of FMNL2 expression in IMR-32 (A), MDA-MB-435S (B), Neuro-2A (C) and C2C12 (D) whole cell lysates and human brain tissue extract (E).



FMNL2 (D-3): sc-390298. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells.

SELECT PRODUCT CITATIONS

- Ivanov, S.S., et al. 2021. *Neisseria gonorrhoeae* subverts formin-dependent Actin polymerization to colonize human macrophages. *PLoS Pathog.* 17: e1010184.
- Jiao, X., et al. 2022. FMNL2 suppresses cell migration and invasion of breast cancer: a reduction of cytoplasmic p27 via RhoA/LIMK/Cofilin pathway. *Cell Death Discov.* 8: 155.
- Liu, D., et al. 2022. Primary specification of blastocyst trophectoderm by scRNA-seq: new insights into embryo implantation. *Sci. Adv.* 8: eabj3725.
- Coscia, S.M., et al. 2024. An interphase Actin wave promotes mitochondrial content mixing and organelle homeostasis. *Nat. Commun.* 15: 3793.

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.

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