

Lamellipodin (H-5): sc-390050

BACKGROUND

Lamellipodin, also called Ras-associated and pleckstrin homology domains-containing protein 1 (RAPH1), is a 1,302 amino acid member of the MRL family. The peripheral membrane protein mediates localized membrane signals and colocalizes at the tips of filopodia and lamellipodia with ENAH/VASP. Aside from the main isoform, nine additional isoforms have been identified for Lamellipodin (RMO1, RMO1a, RMO1b, RMO1c, RMO1ab, RMO1ac, RMO1bc, RMO1abc and RMO1-RAPH1). RMO1-RAPH1 is expressed in a wide variety of tissues, most highly in brain, heart, ovary and developing embryo. RMO1 is also widely expressed, with highest amounts in liver. Lamellipodin is down regulated in breast and ovarian cancers and shows reduced expression in metastatic osteosarcomas in comparison to primary osteosarcoma tumors.

CHROMOSOMAL LOCATION

Genetic locus: RAPH1 (human) mapping to 2q33.2.

SOURCE

Lamellipodin (H-5) is a mouse monoclonal antibody raised against amino acids 91-240 mapping near the N-terminus of Lamellipodin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Lamellipodin (H-5) is available conjugated to agarose (sc-390050 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390050 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390050 PE), fluorescein (sc-390050 FITC), Alexa Fluor® 488 (sc-390050 AF488), Alexa Fluor® 546 (sc-390050 AF546), Alexa Fluor® 594 (sc-390050 AF594) or Alexa Fluor® 647 (sc-390050 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390050 AF680) or Alexa Fluor® 790 (sc-390050 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Lamellipodin (H-5) is recommended for detection of Lamellipodin of 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 Lamellipodin siRNA (h): sc-62539, Lamellipodin shRNA Plasmid (h): sc-62539-SH and Lamellipodin shRNA (h) Lentiviral Particles: sc-62539-V.

Molecular Weight (predicted) of full-length Lamellipodin: 135 kDa.

Molecular Weight (predicted) of Lamellipodin isoforms: 67-73 kDa.

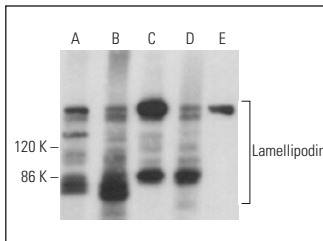
Molecular Weight (observed) of Lamellipodin: 80-100 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

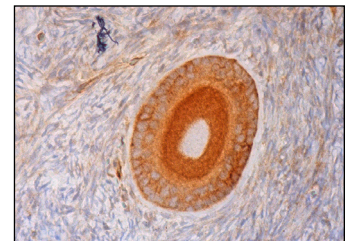
RECOMMENDED SUPPORT REAGENTS

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



Lamellipodin (H-5): sc-390050. Western blot analysis of Lamellipodin expression in MDA-MB-231 (A), PC-3 (B), MCF7 (C), SK-BR-3 (D) and U-251-MG (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP.



Lamellipodin (H-5): sc-390050. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of follicle cells, oocyte and ovarian stroma cells.

SELECT PRODUCT CITATIONS

- Boucrot, E., et al. 2015. Endophilin marks and controls a clathrin-independent endocytic pathway. *Nature* 517: 460-465.
- Chan Wah Hak, L., et al. 2018. FBP17 and CIP4 recruit SHIP2 and Lamellipodin to prime the plasma membrane for fast endophilin-mediated endocytosis. *Nat. Cell Biol.* 20: 1023-1031.

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.

PROTOCOLS

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