

# Lamellipodin (A-8): sc-377492

## 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.

## REFERENCES

- Hadano, S., et al. 2001. A gene encoding a putative GTPase regulator is mutated in familial amyotrophic lateral sclerosis 2. *Nat. Genet.* 29: 166-173.
- Krause, M., et al. 2004. Lamellipodin, an Ena/VASP ligand, is implicated in the regulation of lamellipodial dynamics. *Dev. Cell* 7: 571-583.
- Eppert, K., et al. 2005. Altered expression and deletion of RMO1 in osteosarcoma. *Int. J. Cancer* 114: 738-746.
- Adler, C.E., et al. 2006. UNC-6/Netrin induces neuronal asymmetry and defines the site of axon formation. *Nat. Neurosci.* 9: 511-518.
- Quinn, C.C., et al. 2006. UNC-6/netrin and SLT-1/slit guidance cues orient axon outgrowth mediated by MIG-10/RIAM/Lamellipodin. *Curr. Biol.* 16: 845-853.
- Sjöblom, T., et al. 2006. The consensus coding sequences of human breast and colorectal cancers. *Science* 314: 268-274.
- Chang, C., et al. 2006. MIG-10/Lamellipodin and AGE-1/PI3K promote axon guidance and outgrowth in response to slit and netrin. *Curr. Biol.* 16: 854-862.

## CHROMOSOMAL LOCATION

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

## SOURCE

Lamellipodin (A-8) 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<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## 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.

## APPLICATIONS

Lamellipodin (A-8) 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) 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.

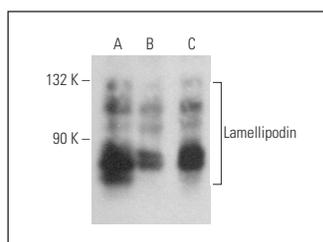
Molecular Weight (observed) of Lamellipodin: 80-100 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, HeLa whole cell lysate: sc-2200 or Caco-2 cell lysate: sc-2262.

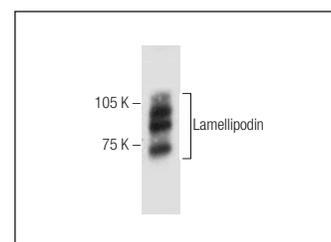
## RECOMMENDED SUPPORT REAGENTS

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



Lamellipodin (A-8): sc-377492. Western blot analysis of Lamellipodin expression in HeLa (A), MDA-MB-231 (B) and Caco-2 (C) whole cell lysates.



Lamellipodin (A-8): sc-377492. Western blot analysis of Lamellipodin expression in MG-63 whole cell lysate.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.