

# L-Plastin (B-9): sc-133218

## BACKGROUND

Plastins (fimbrins) are members of a family of Actin-binding proteins that exhibit a tissue-specific expression pattern. Both L- and T-Plastin have been shown to be involved in cytoskeletal reorganization. L-Plastin, which is specifically expressed in hematopoietic cell lineages, has been proposed to be involved in the control of cell adhesion and motility. It is frequently expressed in cell lines derived from mammary solid tumors and is implicated in cancer invasion and metastasis. L-Plastin is also expressed in the majority of human cancer cell lines that are derived from various types of solid tumors. Additionally, L-Plastin is involved in regulating of leukocyte adhesion, and the phosphorylation of L-Plastin is implicated in modulating integrin regulation signaling pathways. T-Plastin is unique in that it is expressed in many types of tissues and notably absent in leukocytes.

## REFERENCES

- Lin, C.S., et al. 1998. Analysis and mapping of Plastin phosphorylation. *DNA Cell Biol.* 17: 1041-1046.
- Jones, S.L., et al. 1998. A role for the Actin-bundling protein L-Plastin in the regulation of leukocyte integrin function. *Proc. Natl. Acad. Sci. USA* 95: 9331-9336.

## CHROMOSOMAL LOCATION

Genetic locus: LCP1 (human) mapping to 13q14.13; Lcp1 (mouse) mapping to 14 D3.

## SOURCE

L-Plastin (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 298-331 within an internal region of L-Plastin 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.

L-Plastin (B-9) is available conjugated to agarose (sc-133218 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133218 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-133218 PE), fluorescein (sc-133218 FITC), Alexa Fluor® 488 (sc-133218 AF488), Alexa Fluor® 546 (sc-133218 AF546), Alexa Fluor® 594 (sc-133218 AF594) or Alexa Fluor® 647 (sc-133218 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133218 AF680) or Alexa Fluor® 790 (sc-133218 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-133218 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

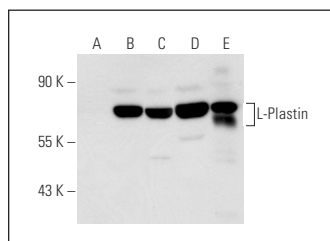
L-Plastin (B-9) is recommended for detection of L-Plastin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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 L-Plastin siRNA (h): sc-43208, L-Plastin siRNA (m): sc-43209, L-Plastin shRNA Plasmid (h): sc-43208-SH, L-Plastin shRNA Plasmid (m): sc-43209-SH, L-Plastin shRNA (h) Lentiviral Particles: sc-43208-V and L-Plastin shRNA (m) Lentiviral Particles: sc-43209-V.

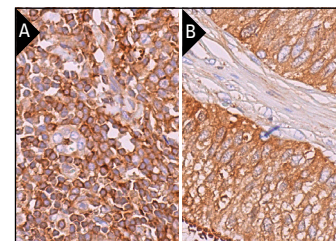
Molecular Weight of L-Plastin: 65 kDa.

Positive Controls: L-Plastin (h): 293T Lysate: sc-113499, CCRF-CEM cell lysate: sc-2225 or RAW 264.7 whole cell lysate: sc-2211.

## DATA



L-Plastin (B-9): sc-133218. Western blot analysis of L-Plastin expression in non-transfected 293T: sc-117752 (A), human L-Plastin transfected 293T: sc-113499 (B), CCRF-CEM (C), K-562 (D) and RAW 264.7 (E) whole cell lysates.



L-Plastin (B-9): sc-133218. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic and apical membrane staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Li, J. and Zhao, R. 2011. Expression and clinical significance of L-Plastin in colorectal carcinoma. *J. Gastrointest. Surg.* 15: 1982-1988.
- Xu, S., et al. 2019. Excessive inflammation impairs heart regeneration in zebrafish breakdance mutant after cryoinjury. *Fish Shellfish Immunol.* 89: 117-126.
- Yang, R., et al. 2019. Combined transcriptome and proteome analysis of immortalized human keratinocytes expressing human papillomavirus 16 (HPV16) oncogenes reveals novel key factors and networks in HPV-induced carcinogenesis. *mSphere* 4: e00129-19.
- Choi, J.W., et al. 2020. Proteome analysis of human natural killer cell derived extracellular vesicles for identification of anticancer effectors. *Molecules* 25: 5216.

## RESEARCH USE

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