SANTA CRUZ BIOTECHNOLOGY, INC.

Plastin (h2): 293T Lysate: sc-116654

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 lineage, has been proposed to be involved in the control of cell adhesion and motility. L-Plastin is also 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. In addition, 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

1. Lin, C.S., Lau, A. and Lue, T.F. 1998. Analysis and mapping of Plastin phosphorylation. DNA Cell Biol. 17: 1041-1046.
2. Jones, S.L., Wang, J., Turck, C.W. and Brown, E.J. 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.
3. Lin, C.S., Lau, A., Huynh, T. and Lue, T.F. 1999. Differential regulation of human T-Plastin gene in leukocytes and non-leukocytes: identification of the promoter, enhancer, and CpG island. DNA Cell Biol. 18: 27-37.
4. Lapillonne, A., Coue, O., Friederich, E., Nicolas, A., Del Maestro, L., Louvard, D., Robine, S. and Sastre-Garau, X. 2000. Expression patterns of L-Plastin isoform in normal and carcinomatous breast tissues. Anticancer Res. 20: 3177-3182.
5. Lin, C.S., Lau, A., Yeh, C.C., Chang, C.H. and Lue, T.F. 2000. Upregulation of L-Plastin gene by testosterone in breast and prostate cancer cells: identification of three cooperative androgen receptor-binding sequences. DNA Cell Biol. 19: 1-7.

CHROMOSOMAL LOCATION

Genetic locus: PLS3 (human) mapping to Xq23.

PRODUCT

Plastin (h2): 293T Lysate represents a lysate of human Plastin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Plastin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Plastin antibodies. Recommended use: 10-20 µl per lane.

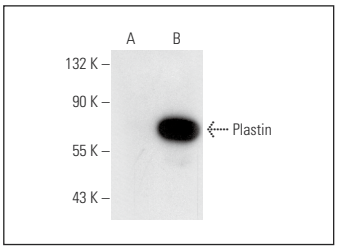
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

T-Plastin (A-8): sc-166223 is recommended as a positive control antibody for Western Blot analysis of enhanced human Plastin expression in Plastin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

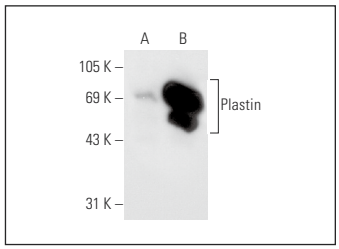
RECOMMENDED SUPPORT REAGENTS

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



T-Plastin (A-8): sc-166223. Western blot analysis of Plastin expression in non-transfected: sc-117752 (**A**) and human Plastin transfected: sc-116654 (**B**) 293T whole cell lysates.



T-Plastin (A-3): sc-166208. Western blot analysis of Plastin expression in non-transfected: sc-117752 (**A**) and human Plastin transfected: sc-116654 (**B**) 293T whole cell lysates.

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.

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.