SANTA CRUZ BIOTECHNOLOGY, INC.

EPLIN (m): 293T Lysate: sc-120078

BACKGROUND

Epithelial protein lost in neoplasm (EPLIN) is a cytoskeleton-associated protein characterized by the presence of a single centrally located lin-11, isl-1 and mec-3 (LIM) domain. It also contains at least two Actin-binding domains, in which the C-terminal domain binds more effectively than the N-terminal domain. By binding Actin monomers and filaments, EPLIN is involved in regulation of the Actin cytoskeleton by increasing the number and size of Actin stress fibers, delaying filament nucleation, reducing formation of branched filaments and bundling of Actin filaments. It also inhibits membrane ruffling and Actin filament depolymerization. EPLIN is strongly expressed in placenta, kidney, pancreas, prostate, ovary, spleen and heart, and to a lesser degree in lung, liver, brain, skeletal muscle, thymus, testis and intestine. It is expressed as two isoforms, EPLIN α and EPLIN β. Downregulation of EPLIN α expression may contribute to the motility of invasive tumor cells.

REFERENCES

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3. Maul, R.S., Sachi Gerbin, C. and Chang, D.D. 2001. Characterization of mouse epithelial protein lost in neoplasm (EPLIN) and comparison of mammalian and zebrafish EPLIN. Gene 262: 155-160.
4. Song, Y., Maul, R.S., Gerbin, C.S. and Chang, D.D. 2002. Inhibition of anchorage-independent growth of transformed NIH/3T3 cells by epithelial protein lost in neoplasm (EPLIN) requires localization of EPLIN to Actin cytoskeleton. Mol. Biol. Cell 13: 1408-1416.
5. Maul, R.S., Song, Y., Amann, K.J., Gerbin, S.C., Pollard, T.D. and Chang, D.D. 2003. EPLIN regulates Actin dynamics by cross-linking and stabilizing filaments. J. Cell Biol. 160: 399-407.
6. Meng, X. and Wilkins, J.A. 2005. Compositional characterization of the cytoskeleton of NK-like cells. J. Proteome Res. 4: 2081-2087.

CHROMOSOMAL LOCATION

Genetic locus: Lima1 (mouse) mapping to 15 F1.

PRODUCT

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

APPLICATIONS

EPLIN (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive EPLIN 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.

RESEARCH USE

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

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.

PROTOCOLS

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