

EPLIN (X-23): sc-133553

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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- 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.
- 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.
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- 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 (human) mapping to 12q13.12; Lima1 (mouse) mapping to 15 F1.

SOURCE

EPLIN (X-23) is an affinity purified rabbit polyclonal antibody raised against synthetic EPLIN peptide of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

EPLIN (X-23) is recommended for detection of EPLIN of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for EPLIN siRNA (h): sc-60593, EPLIN siRNA (m): sc-60594, EPLIN shRNA Plasmid (h): sc-60593-SH, EPLIN shRNA Plasmid (m): sc-60594-SH, EPLIN shRNA (h) Lentiviral Particles: sc-60593-V and EPLIN shRNA (m) Lentiviral Particles: sc-60594-V.

Molecular Weight of EPLIN α : 90 kDa.

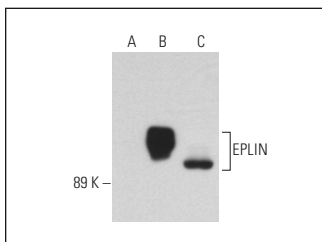
Molecular Weight of EPLIN β : 110 kDa.

Positive Controls: EPLIN (h): 293 Lysate: sc-110636, EPLIN (m): 293T Lysate: sc-120078 or JAR cell lysate: sc-2276.

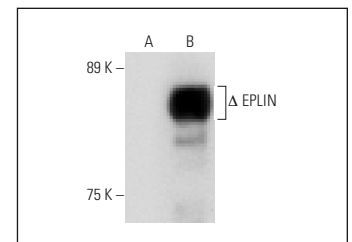
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



EPLIN (X-23): sc-133553. Western blot analysis of EPLIN expression in non-transfected 293T: sc-117752 (A), mouse EPLIN transfected 293T: sc-120078 (B) and JAR (C) whole cell lysates.



EPLIN (X-23): sc-133553. Western blot analysis of EPLIN expression in non-transfected: sc-110760 (A) and truncated human EPLIN transfected: sc-110636 (B) 293 whole cell lysates.

RESEARCH USE

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

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Try **EPLIN (20): sc-136399**, our highly recommended monoclonal alternative to EPLIN (X-23).