

Gelsolin (ABS 017): sc-57509

BACKGROUND

Gelsolin (also known as brevin, Actin-depolymerizing factor or ADF), a protein of leukocytes, platelets and other cells, severs Actin filaments in the presence of submicromolar calcium, thereby isolating cytoplasmic Actin gels. A calcium-independent mechanism reverses the process. A Gelsolin variant with 23 more amino-terminal amino acids is a plasma component probably involved in the clearance of Actin, the most abundant human protein, from the circulation. It has been suggested that a single gene encodes both cell and plasma Gelsolins. Gelsolin may be unique in that it is made for both secretion and intracytoplasmic location. Amino acid homology was identified between Gelsolin and the amyloid of the Finnish variety of amyloidosis. The amyloid in this disorder is antigenically and structurally related to Gelsolin. Gelsolin is the principal intracellular and extracellular Actin-severing protein. Gelsolin and GC protein together constitute the extracellular Actin-scavenger system, which prevents the toxic effects of Actin release into the extracellular space under circumstances of cell necrosis.

REFERENCES

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- Roustan, C., et al. 2007. Calcium-induced conformational changes in the amino-terminal half of gelsolin. *FEBS Lett.* 581: 681-686.
- Eun, D.W., et al. 2007. PKC ϵ is essential for gelsolin expression by histone deacetylase inhibitor apicidin in human cervix cancer cells. *Biochem. Biophys. Res. Commun.* 354: 769-775.

CHROMOSOMAL LOCATION

Genetic locus: GSN (human) mapping to 9q33.2.

SOURCE

Gelsolin (ABS 017) is a mouse monoclonal antibody raised against Gelsolin of plasma of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

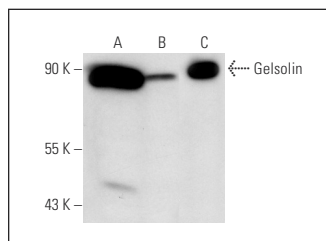
Gelsolin (ABS 017) is recommended for detection of Gelsolin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Gelsolin siRNA (h): sc-37330, Gelsolin shRNA Plasmid (h): sc-37330-SH and Gelsolin shRNA (h) Lentiviral Particles: sc-37330-V.

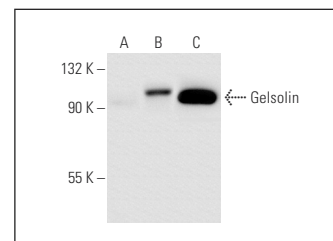
Molecular Weight of Gelsolin: 90 kDa.

Positive Controls: Gelsolin (h2): 293T Lysate: sc-171065, BJAB whole cell lysate: sc-2207 or HISM cell lysate: sc-2229.

DATA



Gelsolin (ABS 017): sc-57509. Western blot analysis of Gelsolin expression in BJAB (A), Raji (B) and HISM (C) whole cell lysates.



Gelsolin (ABS 017): sc-57509. Western blot analysis of Gelsolin expression in non-transfected 293T: sc-117752 (A), human Gelsolin transfected 293T: sc-171065 (B) and BJAB (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Pernemalm, M., et al. 2009. Use of narrow-range peptide IEF to improve detection of lung adenocarcinoma markers in plasma and pleural effusion. *Proteomics* 9: 3414-3424.
- Zhu, W.Y., et al. 2012. Prognostic evaluation of CapG, gelsolin, P-gp, GSTP1, and Topo-II proteins in non-small cell lung cancer. *Anat. Rec.* 295: 208-214.
- Lee, H.J., et al. 2017. Fluid shear stress activates YAP1 to promote cancer cell motility. *Nat. Commun.* 8: 14122.
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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.

RESEARCH USE

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