SANTA CRUZ BIOTECHNOLOGY, INC.

Moesin (38/87): sc-58806

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ezrin, Moesin and Radixin belong to a family of highly homologous Actin-associated proteins that are localized just beneath the plasma membrane. These proteins are believed to be involved in the mediation of interactions between cytoskeletal and membrane proteins. Ezrin serves as a major cytoplasmic substrate of various protein-tyrosine kinases, including the epidermal growth factor receptor. Ezrin has also been identified as a cAMP-dependent protein kinase (A-kinase) anchoring protein and designated AKAP 78. Moesin and Radixin share more than 70% homology with Ezrin and are co-expressed within various cell types. Despite the high degree of homology, the three proteins exhibit a distinct receptor-specific pattern of phosphorylation.

REFERENCES

1. Gould, K.L., et al. 1989. cDNA cloning and sequencing of the protein-tyrosine kinase substrate, Ezrin, reveals homology to band 4.1. EMBO J. 8: 4133-4142.
2. Lankes, W.T. and Furthmayr, H. 1991. Moesin: a member of the protein 4.1-Talin-Ezrin family of protein. Proc. Natl. Acad. Sci. USA 88: 8297-8301.

CHROMOSOMAL LOCATION

Genetic locus: MSN (human) mapping to Xq12; Msn (mouse) mapping to X C3.

SOURCE

Moesin (38/87) is a mouse monoclonal antibody raised against Moesin of bovine origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Moesin (38/87) is recommended for detection of Moesin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with talin or ezrin.

Moesin (38/87) is also recommended for detection of Moesin in additional species, including bovine and porcine.

Suitable for use as control antibody for Moesin siRNA (h): sc-35955, Moesin siRNA (m): sc-35956, Moesin shRNA Plasmid (h): sc-35955-SH, Moesin shRNA Plasmid (m): sc-35956-SH, Moesin shRNA (h) Lentiviral Particles: sc-35955-V and Moesin shRNA (m) Lentiviral Particles: sc-35956-V.

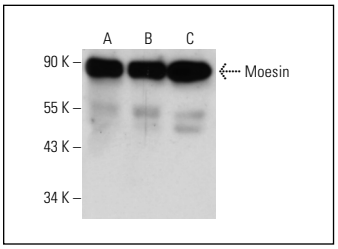
Molecular Weight of Moesin: 77 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, ECV304 cell lysate: sc-2269 or Jurkat whole cell lysate: sc-2204.

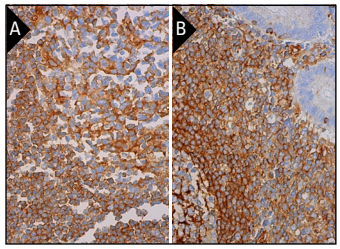
STORAGE

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

DATA



Moesin (38/87): sc-58806. Western blot analysis of Moesin expression in HeLa (**A**), ECV304 (**B**) and Jurkat (**C**) whole cell lysates.



Moesin (38/87): sc-58806. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membrane staining of cells in germinal center and cells in non-germinal center (**A**) and human appendix tissue showing cytoplasmic and membrane staining of lymphoid cells (**B**).

SELECT PRODUCT CITATIONS

1. Zhu, L., et al. 2008. Comparative study of Ezrin phosphorylation among different tissues: more is good; too much is bad. Am. J. Physiol., Cell Physiol. 295: C192-C202.
2. Barroso-Gonzalez, J., et al. 2009. Moesin regulates the trafficking of nascent clathrin-coated vesicles. J. Biol. Chem. 284: 2419-2434.
3. Braoudaki, M., et al. 2011. Proteomic analysis of childhood *de novo* acute myeloid leukemia and myelodysplastic syndrome/AML: correlation to molecular and cytogenetic analyses. Amino Acids 40: 943-951.
4. Kano, T., et al. 2011. Effect of knockdown of Ezrin, Radixin, and Moesin on P-glycoprotein function in Hep G2 cells. J. Pharm. Sci. 100: 5308-5314.
5. Yu, L., et al. 2019. Moesin is an independent prognostic marker for ER-positive breast cancer. Oncol. Lett. 17: 1921-1933.
6. Kamioka, H., et al. 2020. Moesin-mediated P-glycoprotein activation during snail-induced epithelial-mesenchymal transition in lung cancer cells. J. Pharm. Sci. 109: 2302-2308.
7. Inoue, H., et al. 2021. The interaction of ATP11C-b with ezrin contributes to its polarized localization. J. Cell Sci. 134: jcs258523.
8. Zhang, X., et al. 2022. Slug mediates MRP2 expression in non-small cell lung cancer cells. Biomolecules 12: 806.

RESEARCH USE

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

CONJUGATES

See **Moesin (E-10): sc-13122** for Moesin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.