SANTA CRUZ BIOTECHNOLOGY, INC.

Moesin (E-10): sc-13122

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 AKAP78. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Moesin (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 497-526 at the C-terminus of Moesin of human origin.

PRODUCT

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

Moesin (E-10) is available conjugated to agarose (sc-13122 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-13122 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-13122 PE), fluorescein (sc-13122 FITC) or Alexa Fluor® 488 (sc-13122 AF488) or Alexa Fluor® 647 (sc-13122 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-13122 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Moesin (E-10) 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).

Moesin (E-10) is also recommended for detection of Moesin in additional species, including equine, canine, 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.

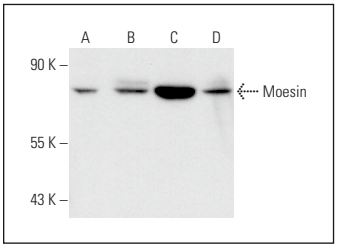
Molecular Weight of Moesin: 77 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Jurkat whole cell lysate: sc-2204.

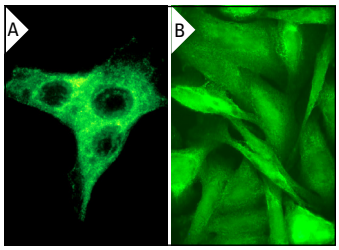
STORAGE

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

DATA



Moesin (E-10): sc-13122. Western blot analysis of Moesin expression in HeLa (**A**), A-431 (**B**), Jurkat (**C**) and NIH/3T3 (**D**) whole cell lysates.



Moesin (E-10): sc-13122. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoskeletal localization (**A**). Moesin (E-10) Alexa Fluor® 488: sc-13122 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane lo-calization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**B**).

SELECT PRODUCT CITATIONS

1. Hennenberg, M., et al. 2006. Defective RhoA/Rho-kinase signaling contributes to vascular hypocontractility and vasodilation in cirrhotic rats. Gastroenterology 130: 838-854.
2. Toms, A.M., et al. 2012. Distribution and expression of the ERM family members, Ezrin, Radixin, Moesin and EHM2 in human colon cancer and the clinical relevance. Transl. Gastrointest. Cancer 1: 205-214.
3. Bhargava, M., et al. 2013. Protein expression profile of rat type two alveolar epithelial cells during hyperoxic stress and recovery. Am. J. Physiol. Lung Cell. Mol. Physiol. 305: L604-L614.
4. Moazzam, M., et al. 2015. Knockdown of WAVE3 impairs HGF induced migration and invasion of prostate cancer cells. Cancer Cell Int. 15: 51.
5. Bizzarro, V., et al. 2017. Hypoxia regulates ANXA1 expression to support prostate cancer cell invasion and aggressiveness. Cell Adh. Migr. 11: 247-260.
6. Jang, J., et al. 2018. Increase in anti-apoptotic molecules, nucleolin, and heat shock protein 70, against upregulated LRRK2 kinase activity. Anim. Cells Syst. 22: 273-280.
7. Maeso-Díaz, R., et al. 2019. New rat model of advanced NASH mimicking pathophysiological features and transcriptomic signature of the human disease. Cells 8: 1062.
8. Hoshino, A., et al. 2020. Extracellular vesicle and particle biomarkers define multiple human cancers. Cell 182: 1044-1061.e18.
9. Li, J., et al. 2023. Sensory nerves directly promote osteoclastogenesis by secreting peptidyl-prolyl *cis-trans* isomerase D (Cyp40). Bone Res. 11: 64.

RESEARCH USE

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