SANTA CRUZ BIOTECHNOLOGY, INC.

Ezrin (5G110): sc-71081

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. The 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 over 70% homology with Ezrin and are coexpressed 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.
3. Sato, N., et al. 1992. A gene family consisting of Ezrin, Radixin and Moesin. Its specific localization at Actin filament/plasma membrane association sites. J. Cell Sci. 103: 131-143.

CHROMOSOMAL LOCATION

Genetic locus: EZR (human) mapping to 6q25.3; Ezr (mouse) mapping to 17 A1.

SOURCE

Ezrin (5G110) is a mouse monoclonal antibody raised against amino acids 362-585 of Ezrin of human 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

Ezrin (5G110) is recommended for detection of Ezrin of mouse, rat, human and bovine 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).

Suitable for use as control antibody for Ezrin siRNA (h): sc-35349, Ezrin siRNA (m): sc-35350, Ezrin shRNA Plasmid (h): sc-35349-SH, Ezrin shRNA Plasmid (m): sc-35350-SH, Ezrin shRNA (h) Lentiviral Particles: sc-35349-V and Ezrin shRNA (m) Lentiviral Particles: sc-35350-V.

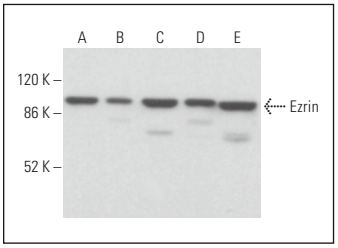
Molecular Weight of Ezrin: 87 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or ALL-SIL whole cell lysate: sc-364356.

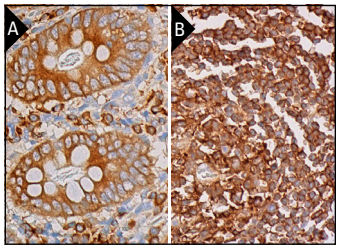
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Ezrin (5G110): sc-71081. Western blot analysis of Ezrin expression in Jurkat (**A**), MOLT-4 (**B**), ALL-SIL (**C**) and 3T3-L1 (**D**) whole cell lysates and rat lymph node tissue extract (**E**).



Ezrin (5G110): sc-71081. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of glandular cells and lymphoid cells (**A**). 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 (**B**).

SELECT PRODUCT CITATIONS

1. Park, J.H., et al. 2015. PUGNAc induces protein ubiquitination in C2C12 myotube cells. Cell Biochem. Funct. 33: 525-533.

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.

PROTOCOLS

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

CONJUGATES

See **Ezrin (3C12): sc-58758** for Ezrin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.