

# Ezrin (A-4): sc-271456

## 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

- 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.
- Lankes, W.T., et al. 1991. Moesin: a member of the protein 4.1-talin-Ezrin family of protein. *Proc. Natl. Acad. Sci. USA* 88: 8297-8301.
- 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.
- Fazioli, F., et al. 1993. The Ezrin-like family of tyrosine kinase substrates: receptor-specific pattern of tyrosine phosphorylation and relationship to malignant transformation. *Oncogene* 8: 1335-1345.
- Algrain, M., et al. 1993. Ezrin contains cytoskeleton and membrane binding domains accounting for its proposed role as a membrane-cytoskeletal linker. *J. Cell Biol.* 120: 129-139.
- Tsukita, S., et al. 1994. ERM family members as molecular linkers between the cell surface glycoprotein CD44 and Actin-based cytoskeletons. *J. Cell Biol.* 126: 391-401.
- Andreoli, C., et al. 1994. Ezrin has properties to self-associate at the plasma membrane. *J. Cell Sci.* 107: 2509-2521.
- Dransfield, D.T., et al. 1997. Ezrin is a cyclic AMP-dependent protein kinase anchoring protein. *EMBO J.* 16: 35-43.

## SOURCE

Ezrin (A-4) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Ezrin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Ezrin (A-4) is recommended for detection of Ezrin, Radixin and Moesin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

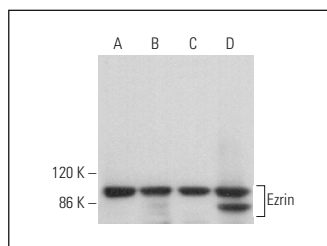
Molecular Weight of Ezrin: 87 kDa.

Positive Controls: AN3 CA cell lysate: sc-24662, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

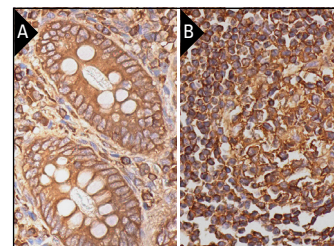
## RECOMMENDED SUPPORT REAGENTS

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 (A-4): sc-271456. Western blot analysis of Ezrin expression in AN3 CA (A), HT-29 (B), Jurkat (C) and Ramos (D) whole cell lysates.



Ezrin (A-4): sc-271456. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of glandular cells and lymphoid cells (A) and human lymph node tissue showing cytoplasmic and membrane staining of cells in germinal center and cells in non-germinal center (B).

## RESEARCH USE

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



See **Ezrin (H-4): sc-398542** for Ezrin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.