

## Ezrin (H-4): sc-398542

### 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. 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.
- 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.

### SOURCE

Ezrin (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 549-584 at the C-terminus of Ezrin of human origin.

### PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Ezrin (H-4) is available conjugated to agarose (sc-398542 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398542 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398542 PE), fluorescein (sc-398542 FITC), Alexa Fluor<sup>®</sup> 488 (sc-398542 AF488), Alexa Fluor<sup>®</sup> 546 (sc-398542 AF546), Alexa Fluor<sup>®</sup> 594 (sc-398542 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-398542 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-398542 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-398542 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398542 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

### RESEARCH USE

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

### APPLICATIONS

Ezrin (H-4) is recommended for detection of Ezrin, Ermin, 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).

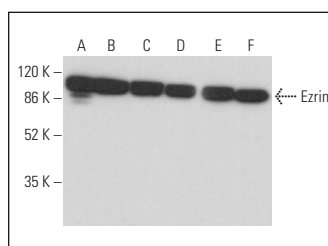
Molecular Weight of Ezrin: 87 kDa.

Positive Controls: C2C12 whole cell lysate: sc-364188, c4 whole cell lysate: sc-364186 or Ramos cell lysate: sc-2216.

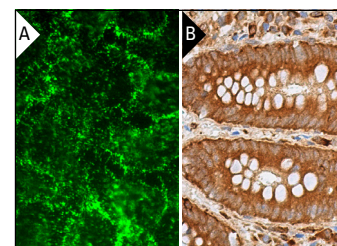
### RECOMMENDED SUPPORT REAGENTS

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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> 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 (H-4): sc-398542. Western blot analysis of Ezrin expression in Ramos (A), Raji (B), NAMALWA (C), WR19L (D), c4 (E) and C2C12 (F) whole cell lysates.



Ezrin (H-4): sc-398542. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic and membrane staining of glandular cells and lymphoid cells (B).

### SELECT PRODUCT CITATIONS

- Morris, E.J., et al. 2020. A model of differential mammary growth initiation by Stat3 and asymmetric Integrin-α6 inheritance. *Cell Rep.* 30: 3605-3615.e5.

### STORAGE

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

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA