

## Ezrin (C-15): sc-6409

### 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 AKAP 78. 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., et al. 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.
4. 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 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Ezrin of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6409 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Ezrin (C-15) is recommended for detection of Ezrin and, to a lesser extent, Radixin and 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Ezrin: 87 kDa.

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

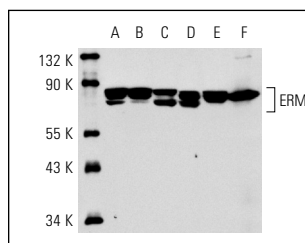
### STORAGE

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

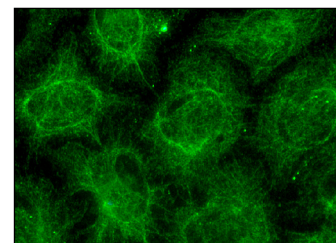
### RESEARCH USE

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

### DATA



Ezrin (C-15): sc-6409. Western blot analysis of ERM family members in A-431 (A), HeLa (B), Jurkat (C), NIH/3T3 (D) and F9 (E) whole cell lysates and rat liver extract (F).



Ezrin (C-15): sc-6409. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

### SELECT PRODUCT CITATIONS

1. Tokunou, M., et al. 2000. Altered expression of the ERM proteins in lung adenocarcinoma. *Lab. Invest.* 80: 1643-1650.
2. Karpnich, NO., et al. 2006. The course of etoposide-induced apoptosis in Jurkat cells lacking p53 and Bax. *J. Cell. Physiol.* 208: 55-63.
3. Matsuda, D., et al. 2006. Involvement of Golgi-associated Lyn tyrosine kinase in the translocation of annexin II to the endoplasmic reticulum under oxidative stress. *Exp. Cell Res.* 312: 1205-1217.
4. Mayer, U., et al. 2008. Proteomic analysis of a membrane preparation from rat olfactory sensory cilia. *Chem. Senses* 33: 145-162.
5. Pagliocca, A., et al. 2008. Identification of ezrin as a target of gastrin in immature mouse gastric parietal cells. *Exp. Physiol.* 93: 1174-1189.
6. Liu, M., et al. 2008. Different binding characteristics of dengue-2 virus to midgut of *Aedes albopictus* (Diptera: Culicidae) and *Culex quinquefasciatus* (Diptera: Culicidae). *Appl. Entomol. Zool.* 43: 49-55.
7. Mayer, U., et al. 2009. The proteome of rat olfactory sensory cilia. *Proteomics* 9: 322-334.
8. Fernando, H.S., et al. 2009. Expression of the ERM family members (ezrin, radixin and moesin) in breast cancer. *Exp. Ther. Med.* 1: 153-160.
9. Federici, C., et al. 2009. Pleiotropic function of ezrin in human metastatic melanomas. *Int. J. Cancer* 124: 2804-2812.
10. Hengl, T., et al. 2010. Molecular components of signal amplification in olfactory sensory cilia. *Proc. Natl. Acad. Sci. USA* 107: 6052-6057.
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12. Dauner, K., et al. 2012. Expression patterns of anoctamin 1 and anoctamin 2 chloride channels in the mammalian nose. *Cell Tissue Res.* 347: 327-341.