

Ezrin (E-8): sc-398807

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.
- 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 (E-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 559-584 at the C-terminus of Ezrin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398807 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 (E-8) 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).

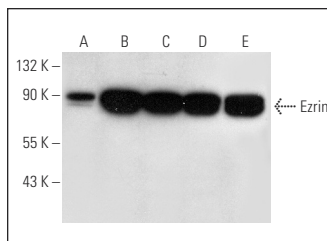
Molecular Weight of Ezrin: 87 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, K-562 whole cell lysate: sc-2203 or MCF7 whole cell lysate: sc-2206.

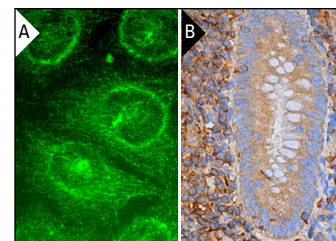
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Ezrin (E-8): sc-398807. Western blot analysis of Ezrin expression in A-431 (A), Ramos (B), MCF7 (C), HT-29 (D) and K-562 (E) whole cell lysates.



Ezrin (E-8): sc-398807. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells and cytoplasmic and membrane staining of lymphoid cells (B).

STORAGE

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

PROTOCOLS

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

CONJUGATES

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.