

Ezrin (3C12): sc-58758



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.

CHROMOSOMAL LOCATION

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

SOURCE

Ezrin (3C12) is a mouse monoclonal antibody raised against amino acids 362-585 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.

Ezrin (3C12) is available conjugated to agarose (sc-58758 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58758 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58758 PE), fluorescein (sc-58758 FITC), Alexa Fluor® 488 (sc-58758 AF488), Alexa Fluor® 546 (sc-58758 AF546), Alexa Fluor® 594 (sc-58758 AF594) or Alexa Fluor® 647 (sc-58758 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58758 AF680) or Alexa Fluor® 790 (sc-58758 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ezrin (3C12) is recommended for detection of Ezrin of mouse, rat, human and bovine origin by Western Blotting (starting dilution to be determined by researcher, dilution range), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, 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: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

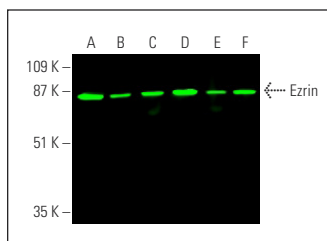
STORAGE

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

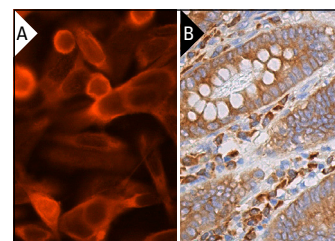
RESEARCH USE

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

DATA



Ezrin (3C12): sc-58758. Near-infrared western blot analysis of Ezrin expression in A-431 (A), HeLa (B), Jurkat (C), Ramos (D), C2C12 (E) and KNRK (F) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



Ezrin (3C12) Alexa Fluor® 546: sc-58758 AF546. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane and cytoplasmic localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A). Ezrin (3C12): sc-58758. Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing cytoplasmic staining of glandular cells and lymphoid cells (B).

SELECT PRODUCT CITATIONS

- Xie, J.J., et al. 2009. Roles of Ezrin in the growth and invasiveness of esophageal squamous carcinoma cells. *Int. J. Cancer* 124: 2549-2558.
- Kano, T., et al. 2011. Effect of knockdown of Ezrin, Radixin, and Moesin on P-glycoprotein function in Hep G2 cells. *J. Pharm. Sci.* 100: 5308-5314.
- Hsu, Y.Y., et al. 2012. Thrombomodulin is an Ezrin-interacting protein that controls epithelial morphology and promotes collective cell migration. *FASEB J.* 26: 3440-3452.
- Lodrin, M., et al. 2013. MYCN and HDAC2 cooperate to repress miR-183 signaling in neuroblastoma. *Nucleic Acids Res.* 41: 6018-6033.
- Bjerrum, J.T., et al. 2014. Transcriptional analysis of left-sided colitis, pancolitis, and ulcerative colitis-associated dysplasia. *Inflamm. Bowel Dis.* 20: 2340-2352.
- Schmitt, M., et al. 2015. CD44 functions in Wnt signaling by regulating LRP6 localization and activation. *Cell Death Differ.* 22: 677-689.
- Mardakheh, F.K., et al. 2016. RHO binding to FAM65A regulates Golgi reorientation during cell migration. *J. Cell Sci.* 129: 4466-4479.
- Storti, F., et al. 2017. Regulated efflux of photoreceptor outer segment-derived cholesterol by human RPE cells. *Exp. Eye Res.* 165: 65-77.
- Yanda, M.K., et al. 2018. Role of calcium in adult onset polycystic kidney disease. *Cell. Signal.* 53: 140-150.
- Demacopulo, B. and Kreimann, E.L. 2019. Bisphenol S increases Ezrin expression and the detrimental effects induced by dehydroepiandrosterone in rat endometrium. *Mol. Cell. Endocrinol.* 483: 64-73.

PROTOCOLS

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

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