

Ezrin (4A5): sc-32759

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 (4A5) is a mouse monoclonal antibody raised against Ezrin purified from gastric parietal cells of rabbit 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 (4A5) is available conjugated to agarose (sc-32759 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32759 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32759 PE), fluorescein (sc-32759 FITC), Alexa Fluor® 488 (sc-32759 AF488), Alexa Fluor® 546 (sc-32759 AF546), Alexa Fluor® 594 (sc-32759 AF594) or Alexa Fluor® 647 (sc-32759 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32759 AF680) or Alexa Fluor® 790 (sc-32759 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Ezrin (4A5) is recommended for detection of Ezrin of mouse, rat, human and rabbit 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, 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.

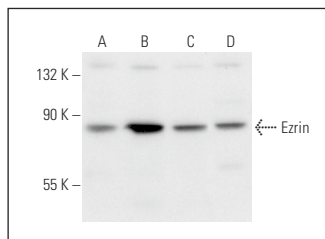
Molecular Weight of Ezrin: 87 kDa.

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

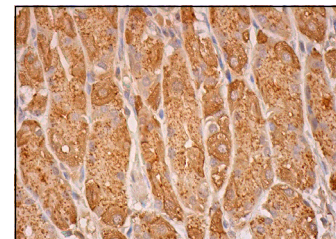
STORAGE

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

DATA



Ezrin (4A5): sc-32759. Western blot analysis of Ezrin expression in Jurkat (A), A-431 (B), HeLa (C) and F9 (D) whole cell lysates.



Ezrin (4A5): sc-32759. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

- Barrero-Villar, M., et al. 2009. Moesin is required for HIV-1-induced CD4-CXCR4 interaction, F-Actin redistribution, membrane fusion and viral infection in lymphocytes. *J. Cell Sci.* 122: 103-113.
- Löfmark, S., et al. 2011. *Neisseria gonorrhoeae* infection induces altered amphiregulin processing and release. *PLoS ONE* 6: e16369.
- Morales, F.C., et al. 2012. NHERF1/EBP50 controls lactation by establishing basal membrane polarity complexes with prolactin receptor. *Cell Death Dis.* 3: e391.
- Recktenwald, C.V., et al. 2015. Impact of the mitogen-activated protein kinase pathway on the subproteome of detergent-resistant microdomains of colon carcinoma cells. *Proteomics* 15: 77-88.
- Raman, R., et al. 2016. aPKC regulates apical localization of Lgl to restrict elongation of microridges in developing zebrafish epidermis. *Nat. Commun.* 7: 11643.
- Leferink, P.S., et al. 2019. Astrocyte subtype vulnerability in stem cell models of vanishing white matter. *Ann. Neurol.* 86: 780-792.
- Moodley, S., et al. 2020. RET isoform-specific interaction with scaffold protein Ezrin promotes cell migration and chemotaxis in lung adenocarcinoma. *Lung Cancer* 142: 123-131.
- Kanlaya, R. and Thongboonkerd, V. 2022. Persistent *Escherichia coli* infection in renal tubular cells enhances calcium oxalate crystal-cell adhesion by inducing Ezrin translocation to apical membranes via Rho/ROCK pathway. *Cell. Mol. Life Sci.* 79: 381.
- Chouhan, G., et al. 2024. Cell-size-dependent regulation of Ezrin dictates epithelial resilience to stretch by countering myosin-II-mediated contractility. *Cell Rep.* 43: 114271.

RESEARCH USE

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