SANTA CRUZ BIOTECHNOLOGY, INC.

Ezrin (H-276): sc-20773

SANTA CRUZ BIOTECHNOLOGY

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.

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. 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.
5. 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.
6. 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.

APPLICATIONS

Ezrin (H-276) 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), 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).

Ezrin (H-276) is also recommended for detection of Ezrin and, to a lesser extent, radixin and moesin in additional species, including equine, canine, bovine and porcine.

Molecular Weight of Ezrin: 87 kDa.

Positive Controls:A-431 whole cell lysate: sc-2201, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

RESEARCH USE

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

SOURCE

Ezrin (H-276) is a rabbit polyclonal antibody raised against amino acids 311-586 of Ezrin of human origin.

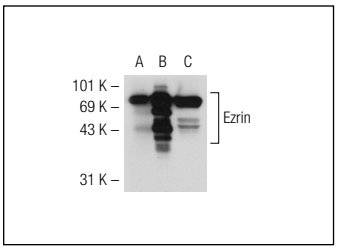
PRODUCT

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

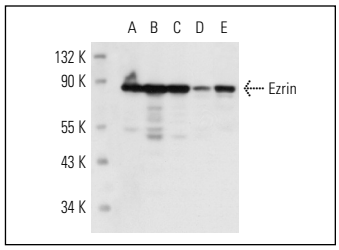
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Ezrin (H-276): sc-20773. Western blot analysis of Ezrin expression in non-transfected 293T: sc-117752 (**A**), human Ezrin transfected 293T: sc-170691 (**B**) and Ramos (**C**) whole cell lysates.



Ezrin (H-276): sc-20773. Western blot analysis of Ezrin expression in Jurkat (**A**), A-431 (**B**), HeLa (**C**), NIH/3T3 (**D**) and F9 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Wakayama, T., et al. 2009. Expression, localization, and binding activity of the Ezrin-Radixin-Moesin proteins in the mouse testis. J. Histochem. Cytochem. 57: 351-362.
2. Nüesch, J.P., et al. 2009. Ezrin-Radixin-Moesin family proteins are involved in parvovirus replication and spreading. J. Virol. 83: 5854-5863.
3. Amanchy, R., et al. 2009. Identification of c-Src tyrosine kinase substrates in platelet-derived growth factor receptor signaling. Mol. Oncol. 3: 439-450.
4. Sosa-García, B., et al. 2010. A role for the retinoblastoma protein as a regulator of mouse osteoblast cell adhesion: implications for osteogenesis and osteosarcoma formation. PLoS ONE 5: e13954.

STORAGE

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