

p-Ezrin (Thr 566): sc-101677

BACKGROUND

The microvillar core protein Ezrin is a tyrosine-phosphorylated protein found in epidermal growth factor-stimulated A-431 carcinoma cells. Ezrin is phosphorylated transiently to a high level on Tyrosine residues 146 and 354. One of the sites, Tyrosine 146, lies in the amino-terminal region of homology that is common to the protein 4.1-Talin-Ezrin protein family. This tyrosine residue and its vicinal amino acids are conserved throughout the family which includes Radixin, Moesin and the two phosphotyrosine phosphatases, PTP H1 and PTP MEG. Another phosphorylation site is Tyrosine 354, which is localized within the α -helical domain of Ezrin. Cytoplasmic signaling may result in activation of Ezrin in tyrosine phosphorylation and this suggests that Ezrin has qualities that might play a role in modulation of cell shape and adhesion.

REFERENCES

- Hunter, T. and Cooper, J.A. 1981. Epidermal growth factor induces rapid tyrosine phosphorylation of proteins in A-431 human tumor cells. *Cell* 24: 741-752.
- Lankes, W.T. and Furthmayr, H. 1991. Moesin: a member of the protein 4.1-Talin-Ezrin family of proteins. *Proc. Natl. Acad. Sci. USA* 88: 8297-8301.
- Krieg, J. and Hunter, T. 1992. Identification of the two major epidermal growth factor-induced tyrosine phosphorylation sites in the microvillar core protein Ezrin. *J. Biol. Chem.* 267: 19258-19265.
- Egerton, M., Burgess, W.H., Chen, D., Druker, B.J., Bretscher, A. and Samelson, L.E. 1992. Identification of Ezrin as an 81 kDa tyrosine-phosphorylated protein in T cells. *J. Immunol.* 149: 1847-1852.
- Wu, Y.X., Uezato, T., and Fujita, M. 2000. Tyrosine phosphorylation and cellular redistribution of Ezrin in MDCK cells treated with pervanadate. *J. Cell. Biochem.* 79: 311-321.

CHROMOSOMAL LOCATION

Genetic locus: VIL2 (human) mapping to 6q25.3; Ezr (mouse) mapping to 17 A1.

SOURCE

p-Ezrin (Thr 566) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Thr 566 of Ezrin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 or our catalog for detailed protocols and support products.

APPLICATIONS

p-Ezrin (Thr 566) is recommended for detection of Thr 566 phosphorylated Ezrin of human and mouse origin and correspondingly phosphorylated Thr 567 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Ezrin siRNA (h): sc-35349 and Ezrin siRNA (m): sc-35350.

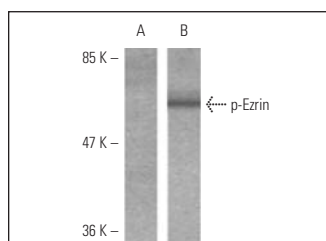
Molecular Weight of p-Ezrin: 87 kDa.

Positive Controls: A-431 + EGF whole cell lysate: sc-2202 or human breast carcinoma tissue.

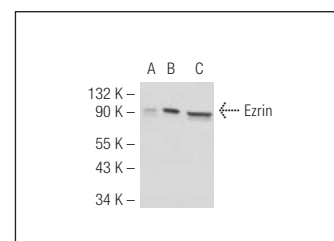
RECOMMENDED SECONDARY REAGENTS

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 B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



p-Ezrin (Thr 566): sc-101677. Western blot analysis of phosphorylated Ezrin expression in untreated (A) and EGF-treated (B) A-431 whole cell lysates.



p-Ezrin (Thr 566): sc-101677. Western blot analysis of Ezrin phosphorylation in non-transfected 293T: sc-117752 (A), human Ezrin transfected 293T: sc-170691 (B) and Ramos (C) whole cell lysates.

RESEARCH USE

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