

# p-Ezrin (Tyr 146)-R: sc-12941-R

## 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  $\alpha$ -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

1. 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.
2. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

p-Ezrin (Tyr 146)-R is an affinity purified rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 146 phosphorylated Ezrin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12941 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-Ezrin (Tyr 146)-R is recommended for detection of Tyr 146 phosphorylated Ezrin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

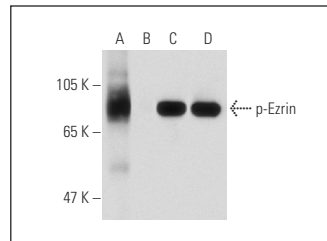
Molecular Weight of p-Ezrin: 87 kDa.

Positive Controls: A-431 + EGF whole cell lysate: sc-2202 or Ramos cell lysate: sc-2216.

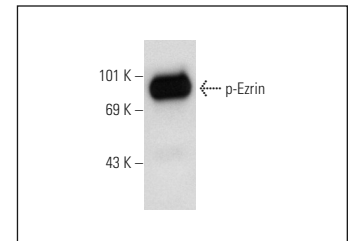
## RECOMMENDED SECONDARY REAGENTS

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), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 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.

## DATA



Western blot analysis of Ezrin phosphorylation in untreated (A,C) and lambda protein phosphatase treated (B,D) Ramos whole cell lysates. Antibodies tested include p-Ezrin (Tyr 146)-R: sc-12941-R (A,B) and Ezrin (3C12): sc-58758 (C,D).



p-Ezrin (Tyr 146)-R: sc-12941-R. Western blot analysis of Ezrin phosphorylation in Ramos whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Watanabe, K., et al. 2009. Participation of ezrin in bacterial uptake by trophoblast giant cells. *Reprod. Biol. Endocrinol.* 7: 95.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **p-Ezrin (G-7): sc-166858**, our highly recommended monoclonal alternative to p-Ezrin (Tyr 146).