

Phospho-Ezrin (Tyr353) Antibody



100 µl
 (10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #7430
Swiss-Prot Acc. #P15311

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W	H	80 kDa	Rabbit**
Endogenous			

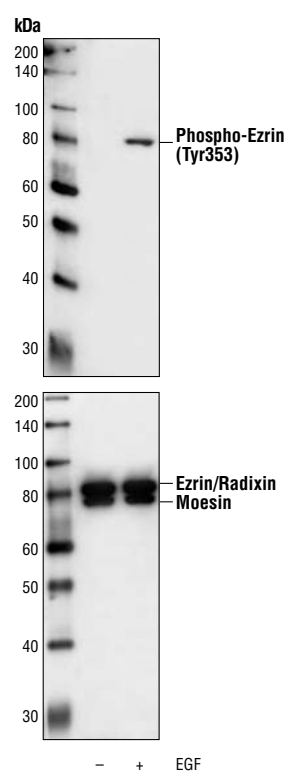
Background: The ezrin, radixin and moesin (ERM) proteins function as linkers between the plasma membrane and the actin cytoskeleton and are involved in cell adhesion, membrane ruffling and microvilli formation (1). ERM proteins undergo intra or intermolecular interaction between their amino- and carboxy terminal domains, existing as inactive cytosolic monomers or dimers (2). Phosphorylation at a carboxy terminal threonine residue (Thr567 of ezrin, Thr564 of radixin, Thr558 of moesin) disrupts their amino- and carboxy terminal association and may play a key role in regulating ERM protein conformation and function (3,4). Phosphorylation at Thr567 of ezrin is required for cytoskeletal rearrangements and oncogene-induced transformation (5). Ezrin is also phosphorylated at tyrosine residues upon growth factor stimulation. Phosphorylation of Tyr353 of ezrin transmits a survival signal during epithelial differentiation (6).

Specificity/Sensitivity: Phospho-Ezrin (Tyr353) Antibody detects endogenous levels of Ezrin only when phosphorylated at Tyr353. The antibody does not cross-react with phosphorylated Moesin or Radixin.

Source/Purification: Polyclonal antibodies are produced by immunizing rabbits with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Tyr353 of human Ezrin. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Tsukita, S. and Yonemura, S. (1999) *J. Biol. Chem.* 274, 34507–34510.
- (2) Mangeat, P. et al. (1999) *Trends Cell Biol.* 9, 187–192.
- (3) Matsui, T. et al. (1998) *J. Cell Biol.* 140, 647–657.
- (4) Gautreau, A. et al. (2000) *J. Cell Biol.* 150, 193–203.
- (5) Tran Quang, C. et al. (2000) *EMBO J.* 19, 4565–4576.
- (6) Gautreau, A. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 7300–7305.



Western blot analysis of extracts from A431 cells, untreated or EGF-treated using Phospho-Ezrin (Tyr353) Antibody (upper) or Ezrin/Radixin/Moesin Antibody #3142 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
 Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.