

#3141 Store at -20°C

Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) Antibody

- Small 100 µl (10 western blots)
- Large 300 µl (30 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.

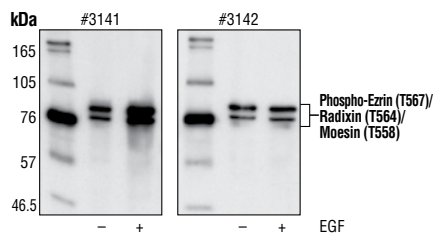
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-IC Endogenous	H, M, R, Mk, (X)	75 kDa Moesin. 80 kDa Ezrin, Radixin.	Rabbit**

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), which disrupts their amino- and carboxy-terminal association, may play a key role in modulating the conformation and function of ERM proteins (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).

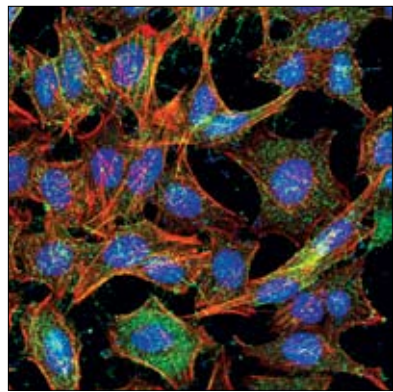
Specificity/Sensitivity: Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) Antibody detects endogenous levels of ezrin, radixin and moesin only when phosphorylated at threonine 567, 564 or 558, respectively. This antibody does not cross-react with related phospho-proteins such as merlin or band 4.1.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide (KLH-coupled) corresponding to residues surrounding Thr567 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 (Thr567)/Radixin (Thr564)/Moesin (Thr558) Antibody (left) or Ezrin/Radixin/Moesin Antibody #3142 (right).



Confocal immunofluorescent analysis of HeLa cells labeled with Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) Antibody (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). Blue pseudocolor = DRAQ5 #4084 (fluorescent DNA dye).

Entrez-Gene ID # 7430, 5962, 4478
Swiss-Prot Acc. # P15311, P35241, P26038

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
Immunofluorescence (IF-IC)	1:1600

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.

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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.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.