

Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) Blocking Peptide



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Description: This peptide is used to block Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) (41A3) Rabbit mAb # 3149 reactivity.

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 the 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).

Quality Control: The quality of the peptide was evaluated by reversed-phase HPLC and by mass spectrometry. The peptide blocks Phospho-Ezrin (Thr567)/Radixin (Thr564)/Moesin (Thr558) (41A3) Rabbit mAb #3149 by peptide dot blot.

Directions for Use: Use as a blocking reagent to evaluate the specificity of antibody reactivity in peptide dot blot protocols. Recommended antibody dilutions can be found on the product data sheet.

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.

Entrez-Gene ID #7430, 5962, 4478

Swiss-Prot Acc. #P15311, P35241, P26038

Storage: Supplied in 20 mM potassium phosphate (pH 7.0), 50 mM NaCl, 0.1 mM EDTA, 1 mg/ml BSA and 5% glycerol. 1% DMSO Store at -20°C.

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

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