Revision 3

Store at -20C
#5484

Phospho-Ezrin (Tyr353) (D66D3) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	80	Rabbit IgG	#P15311	7430

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Phospho-Ezrin (Tyr353) (D66D3) Rabbit mAb recognizes endogenous levels of ezrin protein only when phosphorylated at Tyr353. Based on protein sequences, the antibody is not expected to cross-react with radixin or moesin.

Species predicted to react based on 100% sequence homology:

Monkey, Dog

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr353 of human ezrin protein.

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).

Background References

1. Tsukita, S. and Yonemura, S. (1999) *J Biol Chem* 274, 34507-10.
2. Mangeat, P. et al. (1999) *Trends Cell Biol* 9, 187-92.
3. Matsui, T. et al. (1998) *J Cell Biol* 140, 647-57.
4. Gautreau, A. et al. (2000) *J Cell Biol* 150, 193-203.
5. Tran Quang, C. et al. (2000) *EMBO J* 19, 4565-76.
6. Gautreau, A. et al. (1999) *Proc Natl Acad Sci U S A* 96, 7300-5.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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