

**#3247** Store at -20°C

## Pim-1 (C93F2) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M	Endogenous	34	Rabbit IgG	#P11309	5292

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Pim-1 (C93F2) Rabbit mAb detects endogenous levels of total Pim-1 protein. No cross reactivity was detected with other Pim family members.	
<b>Species predicted to react based on 100% sequence homology:</b>	Rat, Monkey, Bovine	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val160 of Pim-1.	
<b>Background</b>	<p>Pim proteins (Pim-1, Pim-2 and Pim-3) are oncogene-encoded serine/threonine kinases (1). Pim-1, a serine/threonine kinase highly expressed in hematopoietic cells, plays a critical role in the transduction of mitogenic signals and is rapidly induced by a variety of growth factors and cytokines (1-4). Pim-1 cooperates with c-Myc in lymphoid cell transformation and protects cells from growth factor withdrawal and genotoxic stress-induced apoptosis (5,6). Pim-1 also enhances the transcriptional activity of c-Myb through direct phosphorylation within the c-Myb DNA binding domain as well as phosphorylation of the transcriptional coactivator p100 (7,8). Hypermutations of the Pim-1 gene are found in B-cell diffuse large cell lymphomas (9). Phosphorylation of Pim-1 at Tyr218 by Etk occurs following IL-6 stimulation and correlates with an increase in Pim-1 activity (10). Various Pim substrates have been identified; Bad is phosphorylated by both Pim-1 and Pim-2 at Ser112 and this phosphorylation reverses Bad-induced cell apoptosis (11,12).</p> <p>The corresponding pim-1 gene encodes a pair of proteins through use of different translation initiation sites. Both larger 44 kDa (Pim-1L) and smaller 33 kDa (Pim-1S) proteins are active kinases, but differ in stability (13).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Mikkers, H. et al. (2004) <i>Mol Cell Biol</i> 24, 6104-15.</li> <li>2. Selten, G. et al. (1986) <i>Cell</i> 46, 603-11.</li> <li>3. Meeker, T.C. et al. (1987) <i>J Cell Biochem</i> 35, 105-12.</li> <li>4. Dautry, F. et al. (1988) <i>J Biol Chem</i> 263, 17615-20.</li> <li>5. Mörry, T. et al. (1993) <i>Proc Natl Acad Sci USA</i> 90, 10734-8.</li> <li>6. Lilly, M. and Kraft, A. (1997) <i>Cancer Res</i> 57, 5348-55.</li> <li>7. Levenson, J.D. et al. (1998) <i>Mol Cell</i> 2, 417-25.</li> <li>8. Winn, L.M. et al. (2003) <i>Cell Cycle</i> 2, 258-62.</li> <li>9. Pasqualucci, L. et al. (2001) <i>Nature</i> 412, 341-6.</li> <li>10. Kim, O. et al. (2004) <i>Oncogene</i> 23, 1838-44.</li> <li>11. Aho, T.L. et al. (2004) <i>FEBS Lett</i> 571, 43-9.</li> <li>12. Yan, B. et al. (2003) <i>J Biol Chem</i> 278, 45358-67.</li> <li>13. Saris, C.J. et al. (1991) <i>EMBO J</i> 10, 655-64.</li> </ol>	

### 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 BSA, 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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