

#4991 Store at -20°C

## Phospho-VEGF Receptor 2 (Tyr951) (15D2) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M	Endogenous	230	Rabbit IgG	#P35968	3791

<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>	Phospho-VEGF Receptor 2 (Tyr951) (15D2) Rabbit Monoclonal Antibody detects endogenous levels of VEGF receptor 2 only when phosphorylated at Tyr951. The antibody may slightly cross-react with activated VEGF receptor 1, but not with other related tyrosine phosphorylated tyrosine kinases.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr951 of human VEGF receptor 2.	
<b>Background</b>	Vascular endothelial growth factor receptor 2 (VEGFR2, KDR, Flk-1) is a major receptor for VEGF-induced signaling in endothelial cells. Upon ligand binding, VEGFR2 undergoes autophosphorylation and becomes activated (1). Major autophosphorylation sites of VEGFR2 are located in the kinase insert domain (Tyr951/996) and in the tyrosine kinase catalytic domain (Tyr1054/1059) (2). Activation of the receptor leads to rapid recruitment of adaptor proteins, including Shc, GRB2, PI3 kinase, NCK, and the protein tyrosine phosphatases SHP-1 and SHP-2 (3). Phosphorylation at Tyr1212 provides a docking site for GRB2 binding and phospho-Tyr1175 binds the p85 subunit of PI3 kinase and PLCγ, as well as Shb (1,4,5). Signaling from VEGFR2 is necessary for the execution of VEGF-stimulated proliferation, chemotaxis and sprouting, as well as survival of cultured endothelial cells <i>in vitro</i> and angiogenesis <i>in vivo</i> (6-8).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Meyer, M. et al. (1999) <i>EMBO J</i> 18, 363-74.</li> <li>2. Dougher-Vermazen, M. et al. (1994) <i>Biochem Biophys Res Commun</i> 205, 728-38.</li> <li>3. Kroll, J. and Waltenberger, J. (1997) <i>J Biol Chem</i> 272, 32521-7.</li> <li>4. Takahashi, T. et al. (2001) <i>EMBO J</i> 20, 2768-78.</li> <li>5. Holmqvist, K. et al. (2004) <i>J Biol Chem</i> 279, 22267-75.</li> <li>6. Karkkainen, M.J. and Petrova, T.V. (2000) <i>Oncogene</i> 19, 5598-605.</li> <li>7. Rahimi, N. et al. (2000) <i>J Biol Chem</i> 275, 16986-92.</li> <li>8. Claesson-Welsh, L. (2003) <i>Biochem Soc Trans</i> 31, 20-4.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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