

Cat. No:	MAB-94233
Conjugate:	Unconjugated
Size:	100 ug
Clone:	19A10
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu, Ms, Rt
Applications:	Western Blotting 1:1000 IHC 1:50 - 1:100 IF 1:100 - 1:200
Molecular Weight:	230 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1175 of human VEGF Receptor 2.
Background:	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 PLC γ , 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 in vitro and angiogenesis in vivo (6-8). Phospho-VEGF Receptor 2 (Tyr1175) (19A10) Rabbit mAb detects endogenous levels of VEGFR 2 proteins only when phosphorylated at tyrosine 1175.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH 7.4
Storage:	Store at -20°C. Avoid freeze / thaw cycles

References

(1) Meyer, M. et al. (1999) EMBO J 18, 363-74. (2) Dougher-Vermazen, M. et al. (1994) Biochem Biophys Res Commun 205, 728-38. (3) Kroll, J. and Waltenberger, J. (1997) J Biol Chem 272, 32521-7. (4) Takahashi, T. et al. (2001) EMBO J 20, 2768-78. (5) Holmqvist, K. et al. (2004) J Biol Chem 279, 22267-75. (6) Karkkainen, M.J. and Petrova, T.V. (2000) Oncogene 19, 5598-605. (7) Rahimi, N. et al. (2000) J Biol Chem 275, 16986-92. (8) Claesson-Welsh, L. (2003) Biochem Soc Trans 31, 20-4

**For Research use only
IMMUNOLOGICAL SCIENCES**