

Product name:	Phospho-VEGFR2-Y1059
Cat number:	MAB-94234
Conjugate:	Unconjugated
Size:	100 ug
Clone:	D5A6
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	H M
Applications:	WB 1:1000
Molecular Weight:	230 kDa
Purification:	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr1059 of human VEGF Receptor 2.
Form:	liquid
Buffer:	PBS with 0.02% sodium azide, 50% glycerol, pH 7.4
Storage:	Store at -20°C. Avoid freeze / thaw cycles
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 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 in vitro and angiogenesis in vivo (6-8). Phospho-VEGF Receptor 2 (Tyr1059) (D5A6) Rabbit mAb only detects endogenous levels of VEGFR 2 proteins when phosphorylated at Tyr1059.