# Product Data Sheet: Phospho-VEGFR2-Y1059

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| **Cat. No:** | 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. |
| **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 VEGFstimulated 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. |
| **Form:** | liquid |
| **Buffer:** | PBS with 0.02% sodium azide,50% glycerol,pH7.4 |
| **Storage:** | Store at -20℃. 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

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