

DESCRIPTION

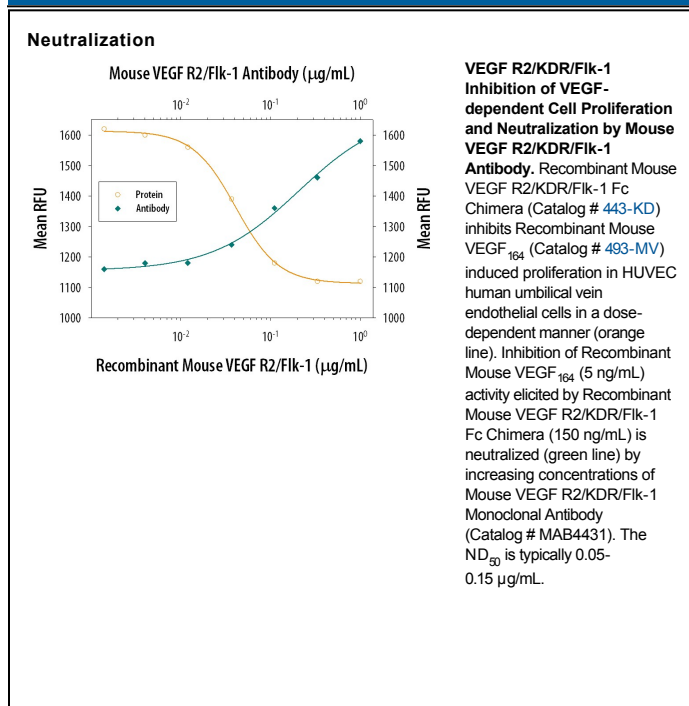
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|---------------------------|---|
| Species Reactivity | Mouse |
| Specificity | Detects mouse VEGF R2 in Western blots. |
| Source | Monoclonal Rat IgG _{2A} Clone # 91202 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant mouse VEGF R2 Ala20-Glu762 Accession # P35918 |
| Endotoxin Level | <0.10 EU per 1 µg of the antibody by the LAL method. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| Mouse VEGF R2/Fik-1 Sandwich Immunoassay | | Reagent |
|--|--|--|
| ELISA Capture | 2-8 µg/mL | Mouse VEGF R2/KDR/Fik-1 Antibody (Catalog # MAB4431) |
| ELISA Detection | 0.1-0.4 µg/mL | Mouse VEGF R2/KDR/Fik-1 Biotinylated Antibody (Catalog # BAF644) |
| Standard | | Recombinant Mouse VEGF R2/KDR/Fik-1 Fc Chimera (Catalog # 443-KD) |
| Neutralization | Measured by its ability to neutralize VEGF R2/KDR/Fik-1-mediated inhibition of proliferation in HUVEC human umbilical vein endothelial cells. The Neutralization Dose (ND ₅₀) is typically 0.05-0.15 µg/mL in the presence of 150 ng/mL Recombinant Mouse VEGF R2/KDR/Fik-1 Fc Chimera and 5 ng/mL Recombinant Mouse VEGF ₁₆₄ . | |

DATA



PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

VEGF R2 (KDR/Fik-1), VEGF R1 (Fit-1) and VEGF R3 (Fit-4) belong to the class III subfamily of receptor tyrosine kinases (RTKs). All three receptors contain seven immunoglobulin-like repeats in their extracellular domains and kinase insert domains in their intracellular regions. The expression of VEGF R1, 2, and 3 is almost exclusively restricted to the endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis. Mouse VEGF R2 cDNA encodes a 1367 amino acid (aa) precursor protein with a 19 aa signal peptide. Mature VEGF R2 is composed of a 743 aa extracellular domain, a 22 aa transmembrane domain, and a 583 aa cytoplasmic domain. In contrast to VEGF R1 which binds both PlGF and VEGF with high affinity, VEGF R2 binds VEGF but not PlGF with high affinity. The recombinant soluble VEGF R2/Fc chimera binds VEGF with high affinity and is a potent VEGF antagonist.

References:

1. Ferrà, N. and R. Davis-Smyth (1997) *Endocrine Reviews* **18**:4.
2. Achen, M.G. *et al.* (1998) *Proc. Natl. Acad. Sci. USA* **95**:548.