

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human VEGF R2/KDR/Fik-1 in ELISAs and Western blots. In Western blots, this antibody does not cross-react with recombinant human (rh) VEGF R1, rhVEGF R3, or rmVEGF R2.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 89109
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human VEGF R2/KDR/Fik-1 Ala20-Glu764 Accession # P35968
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	Recombinant Human VEGF R2/KDR/Fik-1 Fc Chimera (Catalog # <a href="#">357-KD</a> ) under non-reducing conditions only
<b>Human VEGF R2/KDR Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Human VEGF R2/KDR/Fik-1 Antibody (Catalog # <a href="#">MAB3573</a> )
<b>ELISA Detection Standard</b>	0.1-0.4 µg/mL	Human VEGF R2/KDR/Fik-1 Biotinylated Antibody (Catalog # <a href="#">BAF357</a> ) Recombinant Human VEGF R2/KDR/Fik-1 Fc Chimera (Catalog # <a href="#">357-KD</a> )

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

VEGF R2 (KDR/Fik-1), VEGF R1 (Flt-1) and VEGF R3 (Flt-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. VEGF R2 cDNA encodes a 1356 amino acid (aa) residue precursor protein with a 19 aa residue signal peptide. Mature VEGF R2 is composed of a 745 aa residue extracellular domain, a 25 aa residue transmembrane domain and a 567 aa residue cytoplasmic domain. In contrast to VEGF R1 which binds both PIGF and VEGF with high affinity, VEGF R2 binds VEGF but not PIGF with high affinity. The recombinant soluble VEGF R2/Fc chimera binds VEGF with high affinity and is a potent VEGF antagonist.

## References:

1. Ferra, N. and R. Davis-Smyth (1997) *Endocrine Reviews* **18**:4.