

## DESCRIPTION

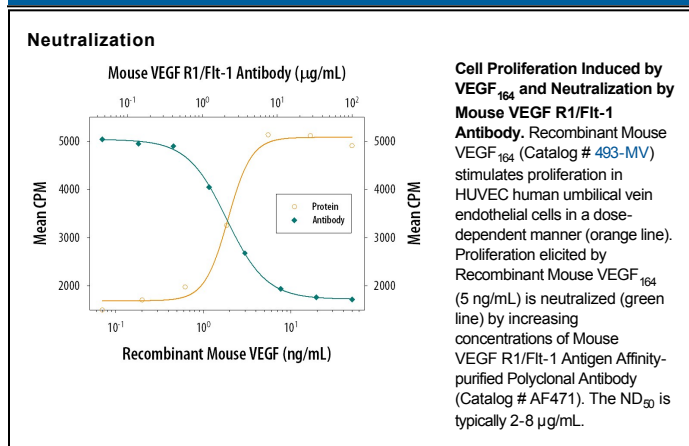
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse VEGF R1/Flt-1 in ELISAs and Western blots. In sandwich ELISAs, approximately 7% cross-reactivity with recombinant human VEGF R1 is observed, approximately 4% cross-reactivity with recombinant mouse (rm) VEGF <sub>164</sub> is observed, less than 1% cross-reactivity with recombinant rat VEGF <sub>164</sub> is observed, and less than 0.2% cross-reactivity with rmVEGF R2 and rmVEGF R3 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse VEGF R1/Flt-1 Ser27-Glu759 Accession # P35969
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	Recombinant Mouse VEGF R1/Flt-1 Fc Chimera (Catalog # 471-F1)
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	bEnd.3 mouse endothelioma cell line
<b>Mouse VEGF R1/Flt-1 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Mouse VEGF R1/Flt-1 Antibody (Catalog # AF471)
<b>ELISA Detection Standard</b>	0.1-0.4 µg/mL	Mouse VEGF R1/Flt-1 Biotinylated Antibody (Catalog # BAF471) Recombinant Mouse VEGF R1/Flt-1 Fc Chimera (Catalog # 471-F1)
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
<b>Neutralization</b>	Measured by its ability to neutralize VEGF <sub>164</sub> -induced proliferation in HUVEC human umbilical vein endothelial cells. The Neutralization Dose (ND <sub>50</sub> ) is typically 2-8 µg/mL in the presence of 5 ng/mL Recombinant Mouse VEGF <sub>164</sub> .	
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 1-4 µg/mL of this antibody will block 50% of the binding of 10 ng/mL of Recombinant Mouse PIGF-2 (Catalog # 465-PL) to immobilized Recombinant Mouse VEGF R1/Flt-1 Fc Chimera (Catalog # 471-F1) coated at 1 µg/mL (100 µL/well). At 50 µg/mL, this antibody will block >90% of the binding.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 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 R1 is one of the five receptor tyrosine kinases (RTKs) (VEGF R1, KDR/Flk-1, Flt-4, Tie-1, and Tek/Tie-2) whose expression is almost exclusively restricted to the endothelial cells. Tie-1 and tek/tie-2 define a new class of RTKs containing two immunoglobulin-like domains, three EGF homology domains and three fibronectin type III domains in their extracellular regions. VEGF R1/Flt-1, VEGF R2/KDR/Flk-1, VEGF R3/Flt-4 are members of the class III subfamily of RTKs containing seven immunoglobulin-like repeats in their extracellular domains. All five RTKs are likely to play central roles in vasculogenesis and angiogenesis.

Full length mouse VEGF R1 mRNA encodes a 1333 amino acid (aa) residue precursor with a predicted 22 aa residue signal peptide. Mature VEGF R1 is composed of a 737 aa residue extracellular domain, a 22 aa residue transmembrane domain and a 552 aa residue cytoplasmic domain. As a result of alternative splicing of the mRNA, a cDNA encoding a truncated form of VEGF R1, lacking the seventh immunoglobulin-like domain, the transmembrane and intracellular domains, has been cloned. The recombinant soluble VEGF R1/Fc chimera binds VEGF and PlGF with high affinity and is a potent VEGF antagonist.

## References:

1. He, Y. *et al.* (1999) *Molecular Endocrinology* **13**:537.
2. Ferrara, N. and T. Davis-Smyth (1997) *Endocrine Reviews* **8**:4.