

**DESCRIPTION**

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse VEGFR1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human VEGFR1, recombinant mouse (rm) VEGFR2, or rmVEGFR3 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 141515
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse VEGFR1 Ser27-Glu759 Accession # P35969
<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 either lyophilized or 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 Mouse VEGFR1/Flt-1 Fc Chimera (Catalog # 471-F1)
<b>Immunohistochemistry</b>	8-25 µg/mL	Perfusion fixed frozen sections of mouse thymus and kidney

**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**

VEGFR1 (also called Flt-1) is one of the five receptor tyrosine kinases (RTKs) (VEGFR1, KDR/Flk-1, Flt-4, Tie-1, and Tek/Tie-2) whose expression is almost exclusively restricted to the endothelial cells. Tie-1 and Tie-2/Tek define a class of RTKs containing two immunoglobulin-like domains, three EGF homology domains and three fibronectin type III domains in their extracellular regions. VEGFR1/Flt-1, VEGFR2/KDR/Flk-1, VEGFR3/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 VEGFR1 mRNA encodes a 1333 amino acid (aa) residue precursor with a 22 aa residue signal peptide. Mature VEGFR1 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 VEGFR1, lacking the seventh immunoglobulin-like domain, the transmembrane and intracellular domains, has been cloned. The recombinant soluble VEGFR1/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.