

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse VEGF R1/Flt-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human VEGF R1, recombinant mouse (rm) VEGF R2, or rmVEGF R3 is observed.
Source	Monoclonal Rat IgG _{2B} Clone # 141522
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse VEGF R1/Flt-1 Ser27-Glu759 Accession # P35969
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	bEnd.3 mouse endothelioma cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

VEGF R1 is one of the five receptor tyrosine kinases (RTKs) (VEGF R1, KDR/Fik-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/Fik-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 PIGF 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.

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