

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human VEGF R2/KDR/FIk-1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) VEGF R1, rhVEGF R3 or recombinant mouse VEGF R2 is observed. |
| Source | Monoclonal Mouse IgG ₁ Clone # 89106 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human VEGF R2/KDR/FIk-1 Ala20-Glu764 Accession # P35968 |
| Conjugate | Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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 | HUVEC human umbilical vein endothelial cells |

PREPARATION AND STORAGE

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| 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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

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. Mature VEGF R2 is composed of a 745 aa extracellular domain, a 25 aa transmembrane domain and a 567 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. Ferra, N. and R. Davis-Smyth (1997) *Endocrine Reviews* **18**:4.

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