

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VEGFR2/KDR/Flk-1 in ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human (rh) VEGFR1, rhVEGFR3, or recombinant mouse VEGFR2 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 89109
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human VEGFR2/KDR/Flk-1 Ala20-Glu764 Accession # P35968
Formulation	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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human VEGFR2/KDR/Flk-1 Fc Chimera (Catalog # 357-KD) under non-reducing conditions only. It is recommended to use Goat Anti-Human VEGFR2/KDR/Flk-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF357).
Human VEGFR2/KDR Sandwich Immunoassay		
ELISA Capture	2-8 µg/mL	Human VEGFR2/KDR/Flk-1 Antibody (Catalog # MAB3573)
ELISA Detection	0.1-0.4 µg/mL	Human VEGFR2/KDR/Flk-1 Biotinylated Antibody (Catalog # BAF357)
Standard		Recombinant Human VEGFR2/KDR/Flk-1 Fc Chimera (Catalog # 357-KD)

PREPARATION AND STORAGE

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

BACKGROUND

VEGFR2 (KDR/Flk-1), VEGFR1 (Flt-1) and VEGFR3 (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 VEGFR1, 2, and 3 is almost exclusively restricted to the endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis. VEGFR2 cDNA encodes a 1356 amino acid (aa) residue precursor protein with a 19 aa residue signal peptide. Mature VEGFR2 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 VEGFR1 which binds both PIGF and VEGF with high affinity, VEGFR2 binds VEGF but not PIGF with high affinity. The recombinant soluble VEGFR2/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.