

DESCRIPTION

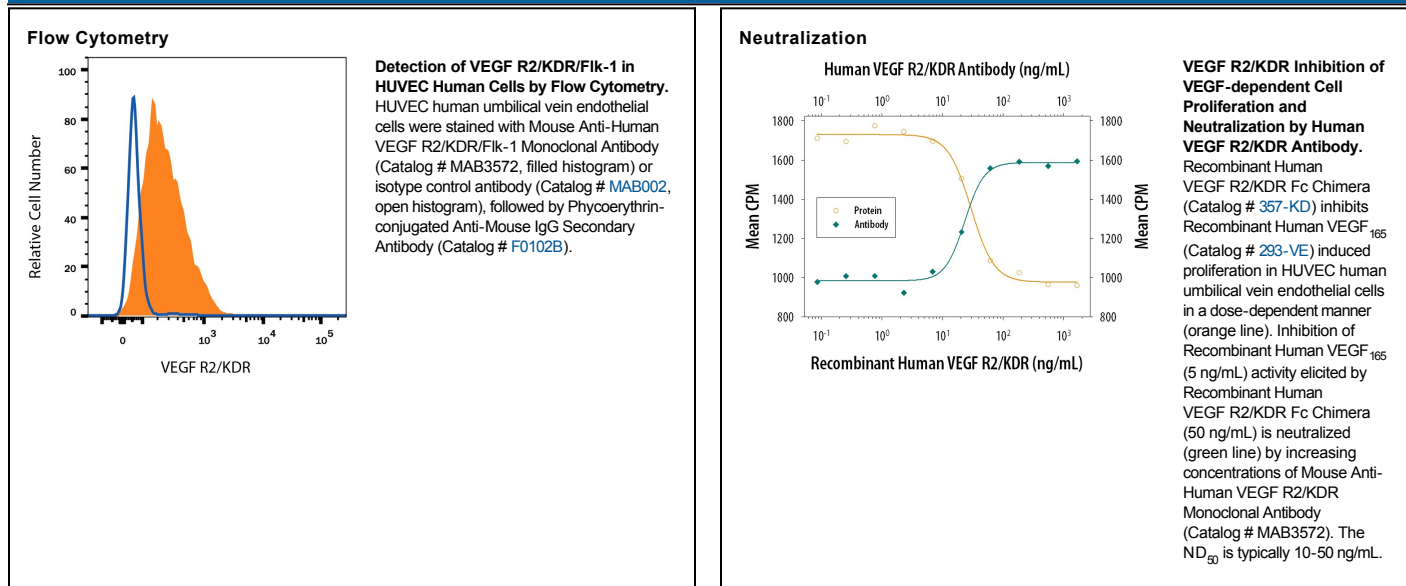
Species Reactivity	Human
Specificity	Detects human VEGF R2/KDR/FIk-1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) VEGF R1, rhVEGF R3 or recombinant mouse VEGF R2 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 89106
Purification	Protein A or G purified from hybridoma 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
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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 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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
Neutralization	Measured by its ability to neutralize VEGF R2/KDR/FIk-1-mediated inhibition of proliferation in HUVEC human umbilical vein endothelial cells. The Neutralization Dose (ND ₅₀) is typically 10-50 ng/mL in the presence of 50 ng/mL Recombinant Human VEGF R2/KDR/FIk-1 Fc Chimera and 5 ng/mL Recombinant Human VEGF ₁₆₅ .	

DATA



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

VEGF R2 (KDR/Fik-1), VEGF R1 (Fit-1) and VEGF R3 (Fit-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 P/IGF and VEGF with high affinity, VEGF R2 binds VEGF but not P/IGF 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.