

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human VEGFR2/KDR/Fik-1 in ELISAs and Western blots. In sandwich immunoassays, less than 0.5% cross-reactivity with recombinant mouse VEGFR2 is observed and less than 0.2% cross-reactivity with recombinant human (rh) VEGFR3 and rhVEGFR1 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human VEGFR2/KDR/Fik-1 Ala20-Glu764 Accession # AAC16450
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

## 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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human VEGFR2/KDR/Fik-1 Fc Chimera (Catalog # 357-KD)
<b>Human VEGFR2/KDR Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	2-8 µg/mL	Human VEGFR2/KDR/Fik-1 Antibody (Catalog # MAB3573)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human VEGFR2/KDR/Fik-1 Biotinylated Antibody (Catalog # BAF357)
<b>Standard</b>		Recombinant Human VEGFR2/KDR/Fik-1 Fc Chimera (Catalog # 357-KD)

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 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.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

VEGFR2 (KDR/Fik-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 PlGF and VEGF with high affinity, VEGFR2 binds VEGF but not PlGF with high affinity.

### References:

1. Ferra, N. and R. Davis-Smyth (1997) *Endocrine Reviews* **18**:4.