

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VEGFR3/Flt-4 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 54733
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human VEGFR3/Flt-4 Tyr25-Ile776 Accession # P35916
Formulation	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
Flow Cytometry	2.5 µg/10 ⁶ cells	HUVEC human umbilical vein endothelial cells
Human VEGFR3/Flt-4 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human VEGFR3/Flt-4 Antibody (Catalog # MAB349)
ELISA Detection	0.5-2.0 µg/mL	Human VEGFR3/Flt-4 Biotinylated Antibody (Catalog # BAM3492)
Standard		Recombinant Human VEGFR3/Flt-4 Fc Chimera (Catalog # 349-F4)

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.
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 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.

VEGFR3 cDNA encodes a 1298 amino acid (aa) residue precursor protein with a 24 aa residue signal peptide. Mature VEGFR3 is composed of a 751 aa residue extracellular domain, a 22 aa residue transmembrane domain, and a 482 aa residue cytoplasmic domain. Both VEGF-C and VEGF-D have been shown to bind and activate VEGFR3 (Flt-4). VEGFR3 is widely expressed in the early embryo but becomes restricted to lymphatic endothelia at later stages of development. It is likely that VEGFR3 may be important for lymph angiogenesis.

References:

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