

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VEGF R3/Flt-4 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 25-30% cross-reactivity with recombinant mouse VEGF R3 is observed and no cross-reactivity with recombinant human (rh) VEGF R1 or rhVEGF R2 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 54703
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human VEGF R3/Flt-4 Tyr25-Ile776 Accession # P35916
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.

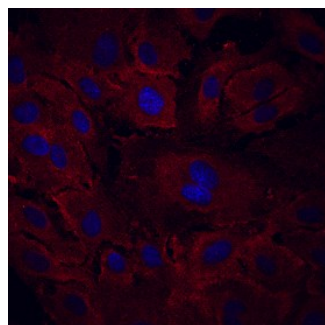
APPLICATIONS

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
Western Blot	1 µg/mL	Recombinant Human VEGF R3/Flt-4 Fc Chimera (Catalog # 349-F4) under non-reducing conditions only
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	Immersion fixed paraffin-embedded sections of human lung

DATA

Immunocytochemistry



VEGF R3/Flt-4 in HUVEC Human Cells.
VEGF R3/Flt-4 was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Mouse Anti-Human VEGF R3/Flt-4 Monoclonal Antibody (Catalog # MAB3491) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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/Flk-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. VEGF R3 cDNA encodes a 1298 amino acid (aa) precursor with a 24 aa signal peptide. Mature VEGF R3 is composed of a 751 aa extracellular domain, a 22 aa transmembrane domain and a 482 aa cytoplasmic domain. Both VEGF-C and VEGF-D have been shown to bind and activate VEGF R3 (Flt-4). VEGF R3 is widely expressed in the early embryo but becomes restricted to lymphatic endothelia at later stages of development. It is likely that VEGF R3 may be important for lymph angiogenesis.

References:

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