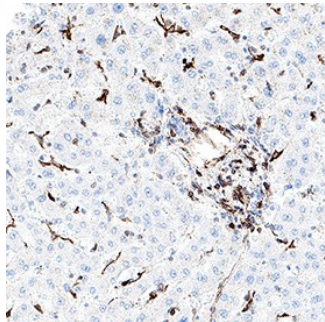


| DESCRIPTION | |
|--------------------|--|
| Species Reactivity | Human |
| Specificity | Detects recombinant human VEGFR3 protein in Direct ELISA. |
| Source | Monoclonal Rat IgG _{2A} Clone # 1091512 |
| Purification | Protein A or G purified from ascites |
| Immunogen | Mouse myeloma cell line, NS0-derived human VEGFR3/Flt-4 Tyr25-Ile776 Accession # P35916 |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. |

| 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 |
| Immunohistochemistry | 3-25 µg/mL | Immersion fixed paraffin-embedded sections of human liver |

| DATA | |
|---|---|
| <p>Immunohistochemistry</p>  | <p>Detection of VEGFR3/Flt-4 in Human Liver. VEGFR3/Flt-4 was detected in immersion fixed paraffin-embedded sections of human liver using Rat Anti-Human VEGFR3/Flt-4 Monoclonal Antibody (Catalog # MAB11624) at 5 µg/ml overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using the HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface and cytoplasm of liver endothelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p> |

| PREPARATION AND STORAGE | |
|-------------------------|---|
| Reconstitution | Reconstitute lyophilized material at 0.2mg/ml in sterile PBS. For liquid material, refer to CoA for concentration. |
| Shipping | Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store 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 VEGFR1, 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) precursor with a 24 aa signal peptide. Mature VEGFR3 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 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.