

#### DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects a synthetic peptide specific for mouse VEGFR2/KDR/Flk-1 around amino acid 1300 in Direct ELISA.
<b>Source</b>	Monoclonal Rat IgG <sub>1</sub> Clone # 1101806
<b>Purification</b>	Protein A or G purified from ascites
<b>Immunogen</b>	Synthetic Peptide Accession # P35918
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

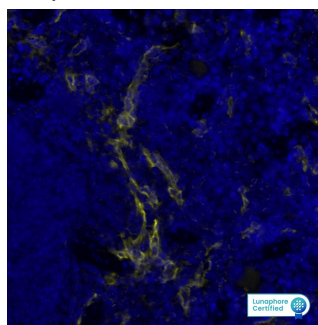
#### APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Multiplex Immunofluorescence</b>	10 µg/mL	Immersion fixed paraffin-embedded sections of Mouse Spleen
<b>Immunohistochemistry</b>	3-25 µg/mL	Perfusion fixed paraffin-embedded sections of mouse liver and stomach

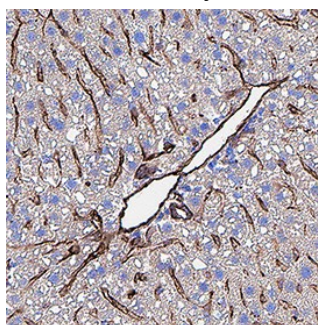
**DATA**

**Multiplex Immunofluorescence**



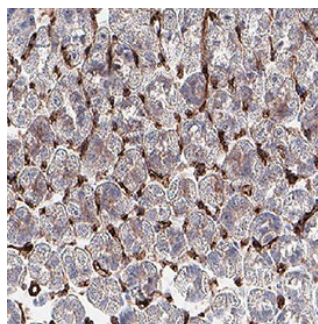
**VEGFR2/KDR/Flk-1 Antibody in Mouse spleen via seqIF™ staining on COMET™**  
VEGFR2/KDR/Flk-1 was detected in immersion fixed paraffin-embedded sections of mouse spleen using Rat Anti-Mouse VEGFR2/KDR/Flk-1, Monoclonal Antibody (Catalog #MAB11703) at 10ug/mL at 37° Celsius for 4 minutes. Before incubation with the primary antibody, tissue underwent an all-in-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9; Eprelia Catalog # TA-999-DHBH). Tissue was stained using the Alexa Fluor™ 555 Goat anti-Rat IgG Secondary Antibody at 1:100 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR555RT) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the membrane. Protocol available in [COMET™ Panel Builder](#).

**Immunohistochemistry**



**Detection of VEGFR2/KDR/Flk-1 in Mouse Liver.**  
VEGFR2/KDR/Flk-1 was detected in perfusion fixed paraffin-embedded sections of mouse liver using Mouse Anti-Mouse VEGFR2/KDR/Flk-1 Monoclonal Antibody (Catalog # MAB11703) 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 membrane. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Immunohistochemistry**



**Detection of VEGFR2/KDR/Flk-1 in Mouse Stomach.**  
VEGFR2/KDR/Flk-1 was detected in perfusion fixed paraffin-embedded sections of mouse stomach using Mouse Anti-Mouse VEGFR2/KDR/Flk-1 Monoclonal Antibody (Catalog # MAB11703) 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 membrane. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute lyophilized material at 0.2 mg/ml in sterile PBS. For liquid material, refer to CoA for concentration.
<b>Shipping</b>	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.
<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/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 endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis. Mature mouse VEGFR2 is composed of a 743 amino acid (aa) extracellular domain, a 22 aa transmembrane domain, and a 583 aa cytoplasmic domain. In contrast to VEGFR1 which binds both PIGF and VEGF with high affinity, VEGFR2 binds VEGF but not PIGF with high affinity.

#### References:

1. Ferra, N. and R. Davis-Smyth (1997) *Endocrine Reviews* **18**:4.
2. Achen, M.G. *et al.* (1998) *Proc. Natl. Acad. Sci. USA* **95**:548.