

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects a synthetic peptide specific for mouse VEGFR2 around amino acid 1300 in Direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 3319C
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic Peptide Accession # P35918
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

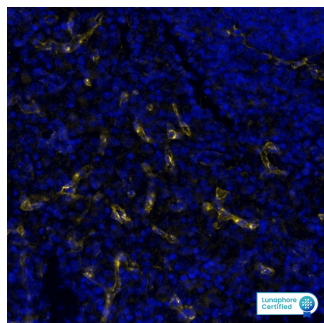
APPLICATIONS

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
Multiplex Immunofluorescence	10 µg/mL	Immersion fixed paraffin-embedded sections of mouse spleen
Immunohistochemistry	0.5-10 µg/mL	Perfusion fixed paraffin-embedded sections of mouse liver and mouse kidney

DATA

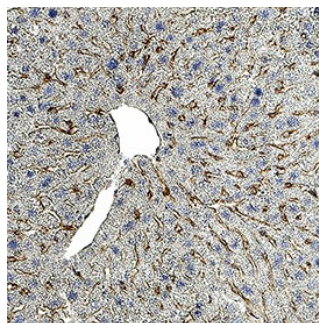
Multiplex Immunofluorescence



Detection of VEGFR2/KDR/Flk-1 in Mouse Spleen via seqIF™ staining on COMET™

VEGFR2/KDR/Flk-1 was detected in immersion fixed paraffin-embedded sections of mouse spleen using Rabbit Anti-Mouse VEGFR2/KDR/Flk-1, Monoclonal Antibody (Catalog #MAB11749) at 10ug/mL at 37° Celsius for 8 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; EpreDia Catalog # TA-999-DHBH). Tissue was stained using the Alexa Fluor™ Plus 647 Goat anti-Rabbit IgG Secondary Antibody at 1:200 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # [DR647RB](#)) and counterstained with DAPI (blue; Lunaphore Catalog # [DR100](#)). Specific staining was localized to the endothelial cells. Protocol available in [COMET™ Panel Builder](#).

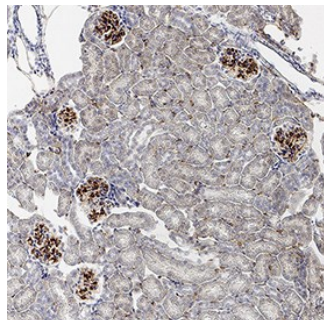
Immunohistochemistry



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 Rabbit Anti-Mouse VEGFR2/KDR/Flk-1 Monoclonal Antibody (Catalog # MAB11749) at 0.5 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-Rabbit IgG Secondary Antibody (Catalog # [HAF008](#)) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface of endothelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Immunohistochemistry



Detection of VEGFR2/KDR/Flk-1 in Mouse Kidney.

VEGFR2/KDR/Flk-1 was detected in perfusion fixed paraffin-embedded sections of mouse kidney using Rabbit Anti-Mouse VEGFR2/KDR/Flk-1 Monoclonal Antibody (Catalog # MAB11749) at 0.5 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-Rabbit IgG Secondary Antibody (Catalog # [HAF008](#)) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface of endothelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2 mg/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. • 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 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.