

DESCRIPTION

Species Reactivity	Human
Specificity	Detects recombinant human CD31/PECAM-1 protein in Direct ELISA.
Source	Monoclonal Mouse IgG _{2B} Clone # 1094431
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived recombinant human CD31/PECAM01 Gln28-Lys601 Accession # P16284
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

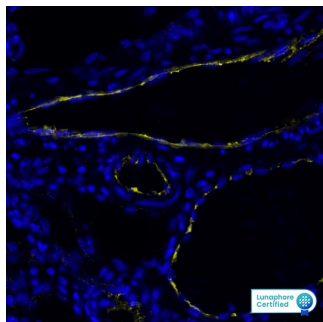
APPLICATIONS

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
Western Blot	2 µg/mL	HUVEC human umbilical vein endothelial cells
Multiplex Immunofluorescence	0.1 µg/mL	Immersion fixed paraffin-embedded sections of human Lymph Node
Immunohistochemistry	0.05-10 µg/mL	Immersion fixed paraffin-embedded sections of human liver tumor and normal human liver
Simple Western	5 µg/mL	HUVEC human umbilical vein endothelial cells

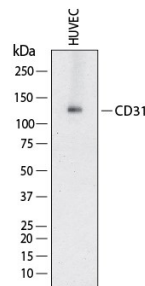
DATA

Multiplex Immunofluorescence



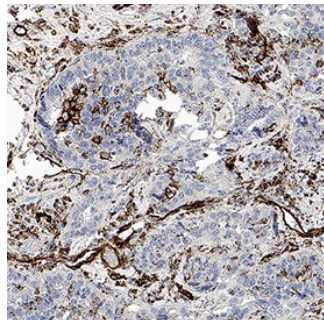
Detection of CD31 in Human Lymph Node via seqIF™ staining on COMET™ CD31 was detected in immersion fixed paraffin-embedded sections of human Lymph Node using Mouse Anti-Human CD31, Monoclonal Antibody (Catalog #MAB11666) at 0.1µg/mL at 37 ° Celsius for 4 minutes. Before incubation with the primary antibody, tissue underwent an all-in-one dewaxing and antigen retrieval preprocessing using PreTreatment Module (PT Module) and Dewax and HIER Buffer H (pH 9; EpreDia Catalog # TA-999-DHBH). Tissue was stained using the Alexa Fluor™ 647 Goat anti-Mouse IgG Secondary Antibody at 1:200 at 37 ° Celsius for 2 minutes. (Yellow; Lunaphore Catalog # DR647MS) and counterstained with DAPI (blue; Lunaphore Catalog # DR100). Specific staining was localized to the membrane. Protocol available in COMET™ Panel Builder.

Western Blot



Detection of Human CD31/PECAM-1 by Western Blot. Western Blot shows lysates of HUVEC human umbilical vein endothelial cells. PVDF membrane was probed with 2 µg/ml of Mouse Anti-Human CD31/PECAM-1 Monoclonal Antibody (Catalog # MAB11666) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for CD31/PECAM-1 at approximately 130 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

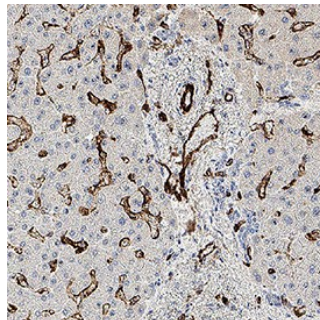
Immunohistochemistry



Detection of CD31/PECAM-1 in Human Liver Tumor.

CD31/PECAM-1 was detected in immersion fixed paraffin-embedded sections of human liver tumor using Mouse Anti-Human CD31/PECAM-1 Monoclonal Antibody (Catalog # MAB11666) at 0.05 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001) or the HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). 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 DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

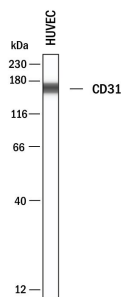
Immunohistochemistry



Detection of CD31/PECAM-1 in Human Liver .

CD31/PECAM-1 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human CD31/PECAM-1 Monoclonal Antibody (Catalog # MAB11666) at 0.05 µg/ml for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001) or the HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). 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 DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to the cell surface. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

Simple Western



Detection of Human CD31/PECAM-1 by Simple Western™.

Simple Western shows lysates of HUVEC human umbilical vein endothelial cells, loaded at 0.5 mg/ml. A specific band was detected for CD31/PECAM-1 at approximately 168 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human CD31/PECAM-1 Monoclonal Antibody (Catalog # MAB11666). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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. <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

The CD31 adhesion molecule, also known as PECAM-1, is expressed in large amounts on endothelial cells at intercellular junctions and on T cell subsets, and to a lesser extent on platelets and most other leukocytes such as monocytes and neutrophils. CD31 binds to itself homotypically, and also to the leukocyte integrin αvβ3 heterotypically. CD31 is required for the transendothelial migration of leukocytes through intercellular junctions of vascular endothelial cells. CD31 has been found in human plasma, and the presence of this circulating isoform is suggested to modulate the transendothelial migration of leukocytes.