

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD31 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse CD31 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD31 Extracellular domain
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

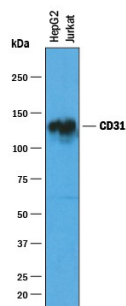
APPLICATIONS

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	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	Immersion fixed paraffin-embedded sections of human liver
Simple Western	10 µg/mL	See Below
Knockout Validated	CD31/PECAM-1 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line but is not detected in CD31/PECAM-1 knockout (KO) THP-1 human cell line.	

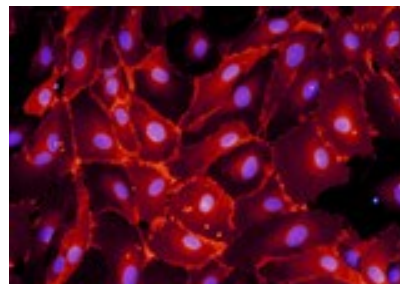
DATA

Western Blot



Detection of Human CD31/PECAM-1 by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CD31/PECAM-1 at approximately 130 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



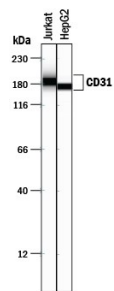
CD31/PECAM-1 in HUVECs. CD31/PECAM-1 was detected in immersion fixed HUVEC human umbilical vein endothelial cells using 10 µg/mL Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Human CD31/PECAM-1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

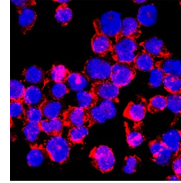
Catalog Number: AF806

Simple Western

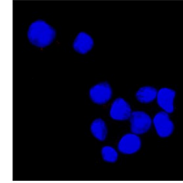


Detection of Human CD31/PECAM-1 by Simple Western™. Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line and HepG2 human hepatocellular carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for CD31/PECAM-1 at approximately 173-186 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

Knockout Validated



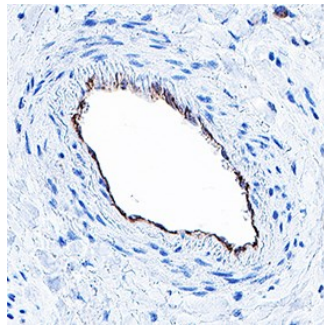
Positive (THP-1 cells)



Negative (THP-1 KO cells)

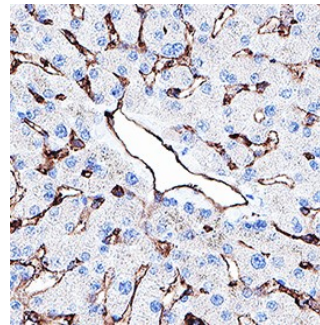
CD31/PECAM-1 Specificity is Shown by Immunocytochemistry in Knockout Cell Line. CD31/PECAM-1 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line but is not detected in CD31/PECAM-1 knockout (KO) THP-1 human cell line using Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) at 5 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cell membrane. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Immunohistochemistry

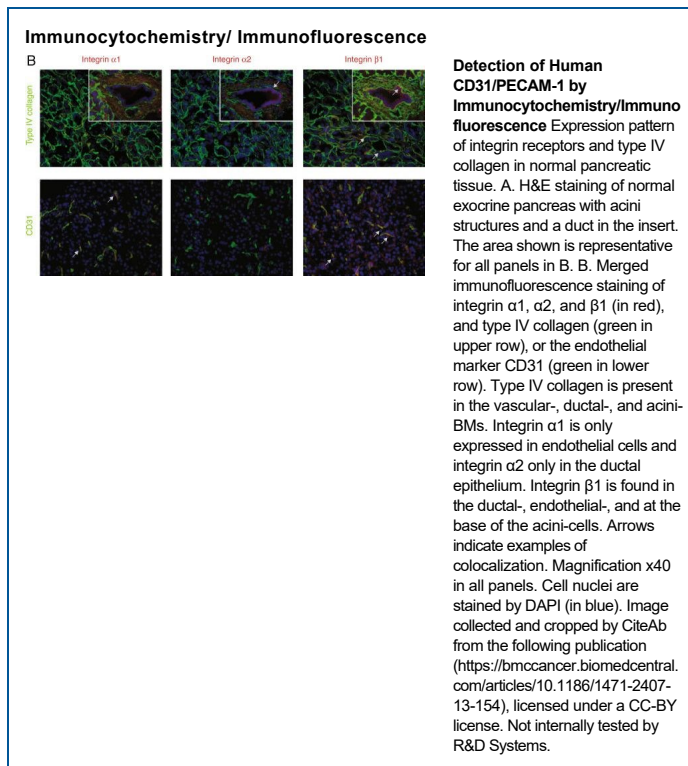


Detection of CD31/PECAM-1 in human liver. CD31/PECAM-1 was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). 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 endothelial cells. 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 Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). 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 endothelial cells and sinusoids. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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 $\alpha v \beta 3$ 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.