

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CD31 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant mouse CD31 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human CD31 Extracellular domain
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

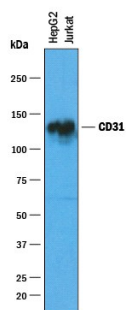
## APPLICATIONS

**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>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

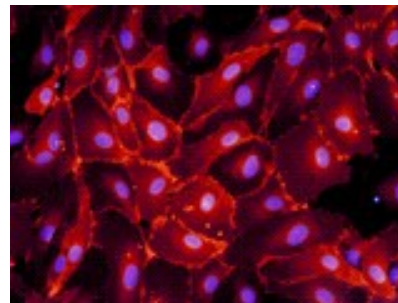
## DATA

### Western Blot



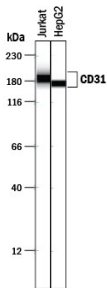
**Detection of Human CD31/PECAM-1 by Western Blot.** Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human CD31/PECAM-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF806) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). 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](#).

### 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.



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<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

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  $\alpha\beta3$  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.