

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CEACAM-1/CD66a in Western blots.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CEACAM-1/CD66a Met1-Gly428 Accession # P31809
<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.

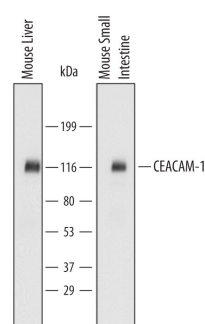
## APPLICATIONS

**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.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	See Below
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA

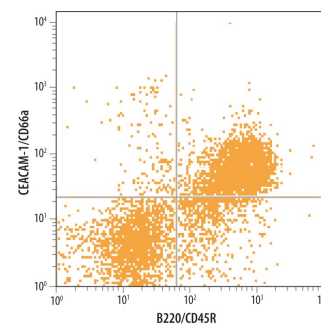
### Western Blot



#### Detection of Mouse CEACAM-1/CD66a by Western Blot.

Western blot shows lysates of mouse liver tissue and mouse small intestine tissue. PVDF Membrane was probed with 0.1 µg/mL of Mouse CEACAM-1/CD66a Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6480) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for CEACAM-1/CD66a between approximately 110 and 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

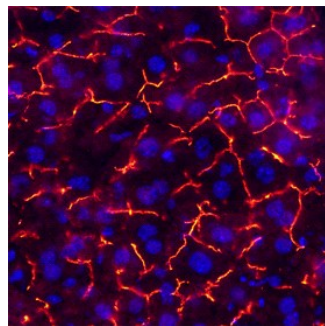
### Flow Cytometry



#### Detection of CEACAM-1 in Mouse Splenocytes by Flow Cytometry.

Mouse splenocytes were stained with Sheep Anti-Mouse CEACAM-1/CD66a Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6480) followed by Phycoerythrin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0126) and Rat Anti-Mouse B220/CD45R APC-conjugated Monoclonal Antibody (Catalog # FAB1217A). Quadrant markers were set based on control antibody staining (Catalog # 5-001-A).

### Immunohistochemistry



#### CEACAM-1/CD66a in Mouse Liver.

CEACAM-1/CD66a was detected in perfusion fixed frozen sections of mouse liver using Sheep Anti-Mouse CEACAM-1/CD66a Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6480) at 5 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to endothelial cells in bile canaliculi. View our protocol for Fluorescent IHC Staining of Frozen Tissue Sections.

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<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>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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

CEACAM-1 (Carcinoembryonic antigen-related cell adhesion molecule 1; also BGP-1, CD66a and MHVR1) is a 110-120 kDa member of the CEACAM subfamily, CEA family of proteins. It has a wide expression pattern, being found on neutrophils, dendritic cells, endothelial cells, colonic epithelium and hepatocytes. It mediates cell adhesion, and appears to regulate insulin levels and signaling by interacting with the insulin receptor. It also demonstrates proangiogenic effects by inducing endothelial cells to proliferate and form capillary-like tubules. Finally, CEACAM-1 is a known receptor for mouse hepatitis virus. Mature mouse CEACAM-1 is a 487 amino acid (aa) type I transmembrane glycoprotein. Its contains a 394 aa extracellular region (aa 35-428) that shows one V-type (aa 35-142) and three C2-type (aa 147-411) Ig-like domains, plus a 74 aa cytoplasmic domain. Three alternate splice forms exist. One contains a four aa substitution for aa 455-521, a second shows a Gln substitution for aa 142-322, and a third possesses a combination of the first two splice patterns. CEACAM-1 forms homodimers. Over aa 35-428, mouse CEACAM-1 shares 56% and 70% aa identity with human and rat CEACAM-1, respectively.