

## DESCRIPTION

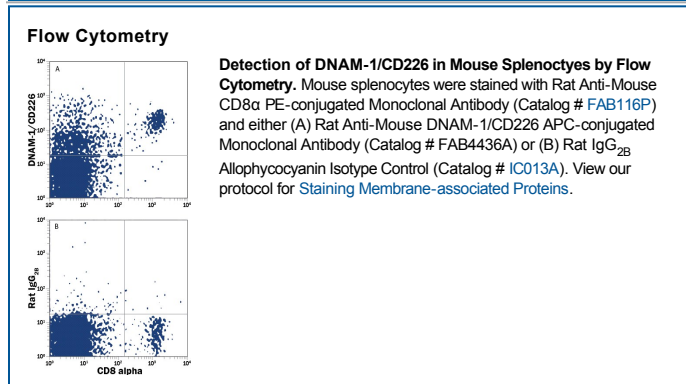
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse DNAM-1/CD226 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DNAM-1/CD226 is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 838216
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse DNAM-1/CD226 Met1-Pro254 Accession # Q8K4F0
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## 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>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

DNAM-1 (DNAM-1), also known as CD226, is a 63-65 kDa type I transmembrane glycoprotein that belongs to the immunoglobulin superfamily. Mature mouse DNAM-1 has a 236 amino acid (aa) extracellular domain (ECD) that contains two Ig-like C2-set domains, and possesses a 58 aa cytoplasmic region that contains motifs for binding PDZ domains and band 4.1 family proteins. Within the ECD, mouse DNAM-1 shares 52% and 86% aa sequence identity with human and rat DNAM-1, respectively. Additional cDNA transcripts of mouse DNAM-1 may give rise to secreted or transmembrane isoforms with ECD deletions. DNAM-1 is expressed on several lymphoid and myeloid cell types including NK cells, CD8<sup>+</sup> T cells, CD4<sup>+</sup> Th1 cells, NKT cells, monocytes, mast cells and platelets and interacts with CD155/PVR and Nectin-2/CD112 *in trans*, and with LFA-1 *in cis*. Ligation of DNAM-1 promotes the activation of NK cells, CD8<sup>+</sup> T cells, and mast cells, induces dendritic cell maturation, initiates megakaryocyte and activated platelet adhesion to vascular endothelial cells, and stimulates monocyte extravasation; conversely, it inhibits the formation of osteoclasts. Platelet-endothelium interactions that are mediated by DNAM-1 enable the metastasis of tumor cells to the lung. On activated, but not resting NK, T, and mast cells, the *cis* association of DNAM-1 with CD18 contributes to tyrosine and serine phosphorylation of DNAM-1 during activation. Finally, DNAM-1 is now known to differentiate between DNAM-1<sup>+</sup> NK cells that produce inflammatory cytokines, an DNAM-1<sup>-</sup> NK cells that secrete MIP-1 chemokines.