

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse DNAM-1/CD226 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant human DNAM-1/CD226 is observed.
Source	Monoclonal Rat IgG _{2B} Clone # 838216
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse DNAM-1/CD226 Met1-Pro254 Accession # Q8K4F0
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL 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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Mouse splenocytes

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

DNAX accessory molecule-1 (DNAM-1), also known as CD226, is a 65 kDa type I transmembrane glycoprotein that belongs to the immunoglobulin superfamily (1). 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 (1, 2). 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 and interacts with CD155/PVR and Nectin-2/CD112 (2-4). Ligation of DNAM-1 promotes the activation of NK cells, CD8⁺ T cells, and mast cells (3-7), 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 (8-11). Platelet-endothelium interactions that are mediated by DNAM-1 enable the metastasis of tumor cells to the lung (12). 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 (7, 10, 13-15).

References:

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