

**DESCRIPTION**

<b>Source</b>	Human embryonic kidney cell, HEK293-derived		
	Cynomolgus Monkey DNAM-1/CD226 (Glu19-Asn247) Accession # XP_005586537	IEGRMD	Human IgG <sub>1</sub> (Pro100-Lys330)
	N-terminus		C-terminus
<b>N-terminal Sequence Analysis</b>	Glu19		
<b>Structure / Form</b>	Disulfide-linked homodimer		
<b>Predicted Molecular Mass</b>	53 kDa		

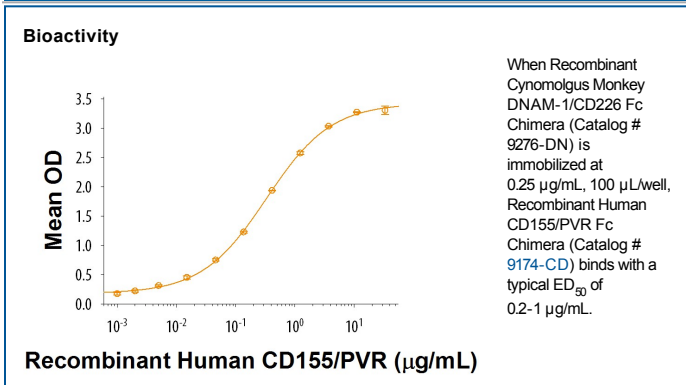
**SPECIFICATIONS**

<b>SDS-PAGE</b>	74-87 kDa, reducing conditions
<b>Activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Cynomolgus Monkey DNAM-1/CD226 Fc Chimera is immobilized at 0.25 µg/mL (100 µL/well), the concentration of Recombinant Human CD155/PVR Fc Chimera (Catalog # 9174-CD) that produces 50% of the optimal binding response is approximately 0.2-1 µg/mL.
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 1 mg/mL in PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<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>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**DATA**



**BACKGROUND**

DNAX accessory molecule-1 (DNAM-1), also known as CD226, is a 65 kDa type I transmembrane glycoprotein in the immunoglobulin superfamily (1). Mature cynomolgus DNAM-1 contains a 236 amino acid (aa) extracellular domain (ECD) with two Ig-like C2-set domains and a 61 aa cytoplasmic region that contains motifs for binding PDZ domains and band 4.1 family proteins (1, 2). Within the ECD, cynomolgus DNAM-1 shares 93%, 53% and 50% aa sequence identity with human, mouse, and rat DNAM-1, respectively. DNAM-1 is expressed on multiple lymphoid, myeloid cells, and activated vascular endothelial cells and interacts with CD155/PVR and Nectin-2/CD112 (3-5). It competes with CD96 and TIGIT for binding to these proteins (6). It associates in cis with Integrin beta 2/CD18 on activated, but not resting, NK, T, and mast cells (5, 7, 8). Ligation of DNAM-1 promotes the activation of NK cells, CD8<sup>+</sup> T cells, and mast cells (2-4, 7, 9), Th17 polarization (10), dendritic cell maturation, megakaryocyte, and activated platelet adhesion to vascular endothelial cells, and monocyte extravasation; it also inhibits the formation of osteoclasts (11-14). Platelet-endothelium interactions mediated by DNAM-1 enable the metastasis of tumor cells to the lung (15). Downregulation of DNAM-1 on tumor cells can interfere with anti-tumor cellular immunity (16).

**References:**

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