

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived		
	Cynomolgus Monkey DNAM-1/CD226 (Glu19-Asn247) Accession # XP_005586537	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus

N-terminal Sequence Analysis	Glu19
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	53 kDa

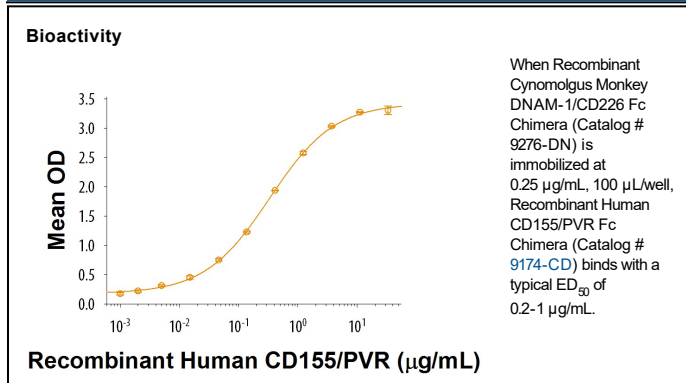
SPECIFICATIONS

SDS-PAGE	74-87 kDa, reducing conditions
Activity	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.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 1 mg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

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⁺ 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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