10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DNAM-1/CD226

Catalog # PVGS1601

Product Information

Primary Accession	Q15762
Species	Human
Sequence	Glu19-Asn247
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized Rhesus macaque CD155/PVR Protein, His Tag at 1.0 μg/ml (100 μl/well) can bind DNAM-1/CD226, hFc, Human with an EC_{50} of 0.871 μg/ml when detected by Mouse Anti-Human IgG Fc-HRP.
Expression System	HEK 293
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	10666
Other Names	CD226 antigen, DNAX accessory molecule 1, DNAM-1, CD226, CD226, DNAM1
Target Background	DNAM-1 (DNAX accessory molecule-1), also known as CD226, platelet and T cell activation antigen 1 (PTA1) and TLiSA1, is a member of the Ig superfamily containing two Ig-like domains of the V set and is encoded by a gene on human chromosome 18q22.3. DNAM-1 is an activating receptor expressed on natural killer (NK) cells, CD8+ T cells, and other immune cells. Upon recognition of its ligands, CD155 and CD112, DNAM-1 promotes NK cell–mediated elimination of transformed and virus-infected cells. It also has a key role in expansion and maintenance of virus-specific memory NK cells. DNAM-1 is the cell surface receptor of NECTIN2. Upon ligand binding, it stimulates T cell proliferation and cytokine production, including that of IL2, IL5, IL10, IL13 and IFNG.

Protein Information

Name	CD226
Synonyms	DNAM1
Function	Cell surface receptor that plays an important role in the immune system, particularly in intercellular adhesion, lymphocyte signaling, cytotoxicity and lymphokine secretion mediated by cytotoxic T-cells and NK cells (PubMed:8673704, PubMed:9712030). Functions as a costimulatory receptor upon recognition of target cells, such as virus- infected or tumor cells. Upon binding to its ligands PVR/CD155 or NECTIN2/CD112 on target cells, promotes the cytotoxic activity of NK cells and CTLs, enhancing their ability to kill these cells (PubMed:26755705, PubMed:31253644, PubMed:30591568). Mechanistically, phosphorylation by Src kinases such as LYN of FYN, enables binding to adapter GRB2, leading to activation of VAV1, PI3K and PLCG1. Promotes also activation of kinases ERK and AKT, as well as calcium fluxes (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Note=Localizes to lipid rafts.
Tissue Location	Expressed by peripheral blood T-lymphocytes.