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B7-2/CD86

Catalog # PVGS1522

Product Information

Primary Accession	P42081
Species	Human
Sequence	Leu20-Pro247
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized B7-2/CD86, hFc, Human at 5.0 μg/ml (100 μl/well) can bind human Biotin-CD28-Fc.
Expression System	HEK 293
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, 5% trehalose and mannitol.
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	942
Other Names	T-lymphocyte activation antigen CD86, Activation B7-2 antigen, B70, BU63, CTLA-4 counter-receptor B7.2, FUN-1, CD86, CD86, CD28LG2
Target Background	B7-1 and B7-2 are homologous costimulatory ligands expressed on the surface of antigen presenting cells (APCs), both are type 1 transmembrane proteins with a membrane distal IgV and a membrane proximal IgC domain. They share ~25% sequence homology and interact with the same receptors, CD28 and CTLA-4.Binding of these molecules to the T cell costimulatory receptors, CD28 and CTLA-4, is essential for the activation and regulation of T cell immunity. T cell activation requires engagement of the T cell receptor (TCR) with the peptide–MHC complex presented on the cell surface of antigen presenting cells (APCs). In addition to this antigen-specific interaction, a second interaction involving costimulatory receptors (CD28, ICOS) on T cells and their respective ligands (B7-1/B7-2, ICOS-L) on APCs is required for optimal T cell activation. B7-1 and B7-2 may also function to deliver signal into dendritic cells. While B7-1 favors binding to CTLA-4, B7-2 shows a preference

for CD28.

Protein Information

Name	CD86
Synonyms	CD28LG2
Function	Costimulatory molecule that belongs to the immunoglobulin superfamily that plays an important role in T-lymphocyte activation (PubMed:12196291, PubMed:7694363). Acts as the primary auxiliary signal augmenting the MHC/TCR signal in naive T-cells by acting as a ligand for the CD28 receptor which is constitutively expressed on the cell surface of T-cells (PubMed:12196291, PubMed:7694363). May play a critical role in the early events of T-cell activation and costimulation of naive T-cells, such as deciding between immunity and anergy that is made by T-cells within 24 hours after activation (PubMed:7527824). Also involved in the regulation of B cells function, plays a role in regulating the level of IgG(1) produced. Upon CD40 engagement, activates NF-kappa-B signaling pathway via phospholipase C and protein kinase C activation (By similarity). Also acts as an inhibitor of T-cell activation by acting as a ligand for CTLA4, a decoy receptor, thereby blocking CD28-mediated T-cell priming (PubMed:11279501).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed on the surfaces of antigen-presenting cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.