

Active Recombinant Human PDCD1LG2 protein, Fc-tagged, Biotinylated

Cat. No. PDCD1LG2-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human PDCD1LG2(Leu20-Pro219) protein, fused to Fc tag at the C-terminus, was expressed in NS0 cells .
Species	Human
Source	Mammalian Cells
ProteinLength	Leu20-Pro219
Description	PDCD1LG2, also known as B7-DC and butyrophilin-like protein, is a member of the B7 family of proteins that provide signals for regulating T-cell activation and tolerance (1). Mature human PD-L2 consists of a 201 amino acid (aa) extracellular domain (ECD) with one V-like and one C-like Ig domain, a 21 aa transmembrane segment, and a 32 aa cytoplasmic domain (2, 3). Within the ECD, mouse and human PD-L2 share 72% aa sequence identity. Alternative splicing generates additional isoforms that lack the second Ig-like domain and may be substituted and truncated following the first Ig-like domain (4). PD-L2 is expressed on dendritic cells, subsets of activated CD4+ and CD8+ T cells, and memory B cells that differentiate into plasma cells (3, 5, 6). At inflammatory sites such as rheumatoid arthritis, allergen exposure, and virus infection, PD-L2 is up-regulated on synoviocytes, infiltrating macrophages, dendritic cells, and airway epithelial cells (7-11). PD-L2, along with B7-H1/PD-L1, binds to T cell PD-1 where it promotes IFN-gamma production and CD40 Ligand up-regulation while inhibiting IL-4 production (2, 3, 12, 13). In addition, PD-L2 binds to RGM-B on

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	macrophages and alveolar epithelial cells, supporting respiratory immune tolerance (14). In asthma, PD-L2 suppresses IL-5 and IL-13 production, promotes IL-12 production by dendritic cells, and supports allergen-induced airway hyper-responsiveness and mucus production (9, 11).
Predicted N Terminal	Leu20
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human PDCD1 Fc Chimera is immobilized at 100 ng/mL, 100 µL/well, the concentration of Biotinylated Recombinant PDCD1G2 Fc Chimera that produces 50% of the optimal binding response is 0.04-0.24 µg/mL.
Endotoxin	<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.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 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.
Reconstitution	Reconstitute at 250 µg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

Gene Name PDCD1LG2 programmed cell death 1 ligand 2 [Homo sapiens]

Official Symbol PDCD1LG2

Synonyms PDCD1LG2; programmed cell death 1 ligand 2; B7 dendritic cell molecule; B7 DC; bA574F11.2; Btdc; CD273; PD L2; PDL2; B7-DC; PD-1 ligand 2; PD-1-ligand 2; PDCD1 ligand 2; butyrophilin B7-DC; programmed death ligand 2; B7DC; PD-L2; PDCD1L2; MGC142238; MGC142240;

Gene ID 80380

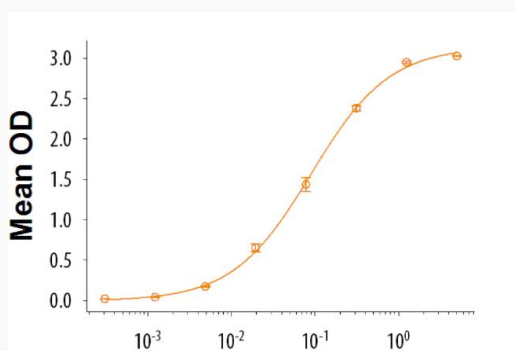
mRNA Refseq NM_025239

Protein Refseq NP_079515

MIM 605723

UniProt ID Q9BQ51

Binding Activity

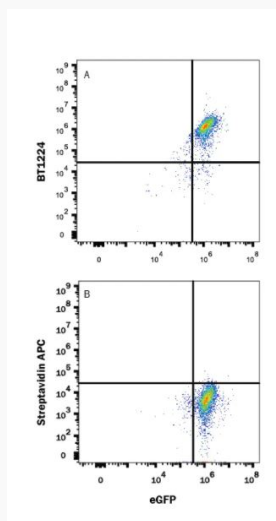


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flow cytometry



In a functional flow cytometry test, (A) Recombinant Human PDCD1LG2 Fc Biotinylated Protein binds to HEK293 human embryonic kidney cell line transfected with recombinant human PDCD1 and EGFP. Ligand binding was detected by staining cells with APC-conjugated Streptavidin, which does not stain the cells in the absence of recombinant protein (B).

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