# Active Recombinant Human PDCD1LG2 protein, Fc-tagged, Biotinylated

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

## SPECIFICATION

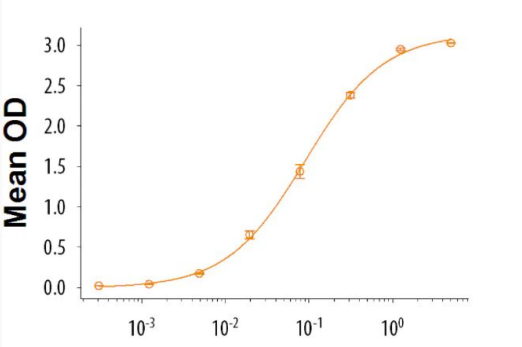
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| **Product Overview** | Biotinylated Recombinant Human PDCD1LG2(Leu20-Pro219) protein, fused to Fc tag at the C-terminus, was expressed in NS0 cells . |
| **Species** | Human |
| **Source** | Mammalian Cells |
| **ProteinLength** | Leu20-Pro219 |
| **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 |

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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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 |

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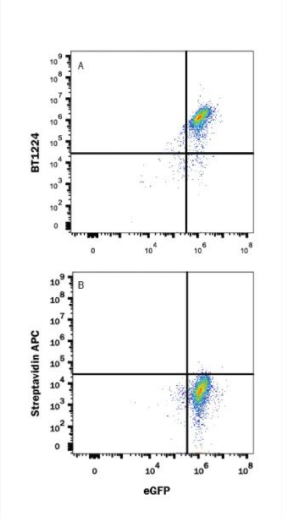
## GENE INFORMATION

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| **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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