# Active Recombinant Human CD274 Protein, Fc-tagged, Alexa Fluor 647 conjugated

**Cat. No.** CD274-178HAF647 **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human CD274 Protein extracellular domain (19-239aa, signal peptide removed), was expressed in CHO with C-terminal Fc tag and Alexa Fluor 647 conjugate. |
| **Species** | Human |
| **Source** | CHO |
| **ProteinLength** | 19-239 aa |
| **Description** | Programmed death-1 ligand-1 (PD-L1, CD274, B7-H1) has been identified as the ligand for the immunoinhibitory receptor programmed death-1(PD1/PDCD1) and has been demonstrated to play a role in the regulation of immune responses and peripheral tolerance. PD-L1/B7-H1 is a member of the growing B7 family of immune molecules and this protein contains one V-like and one C-like Ig domain within the extracellular domain, and together with PD-L2, are two ligands for PD1 which belongs to the CD28/CTLA4 family expressed on activated lymphoid cells. By binding to PD1 on activated T-cells and B-cells, PD-L1 may inhibit ongoing T-cell responses by inducing apoptosis and arresting cell-cycle progression. Accordingly, it leads to growth of immunogenic tumor growth by increasing apoptosis of antigen specific T cells and may contribute to immune evasion by cancers. PD-L1 thus is regarded as promising therapeutic target for human autoimmune disease and malignant cancers. |

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| **Form** | Lyophilized |
| **Bio-activity** | Measured by its binding ability in a functional ELISA. Immobilized human B7-H1 at 20 μg/mL (100 μL/well) can bind recombinant human B7-H1/PD-L1/Fc chimera with a linear range of 0.032-0.8 μg/mL. |
| **Molecular Mass** | 53.2 KD |
| **N-terminal Sequence Analysis** | Phe 19 |
| **Endotoxin** | < 1.0 EU/ μg by the LAL method. |
| **Purity** | > 98 % as determined by SDS-PAGE |
| **Characteristic** | Disulfide-linked homodimer<br>Labeled with Alexa Fluor 647 via amines<br>Excitation = 650 nm<br>Emission = 668 nm |
| **Stability** | Samples are stable for up to 12 months from date of receipt at -70 centigrade. |
| **Storage** | Store it under sterile conditions at -20 to-70 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Storage Buffer** | Lyophilized from sterile PBS, pH 7.4. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents. |

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| **Conjugation** | Alexa Fluor 647 |

## GENE INFORMATION

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| **Gene Name** | CD274 CD274 molecule [ Homo sapiens ] |
| **Official Symbol** | CD274 |
| **Synonyms** | CD274; CD274 molecule; CD274 antigen , PDCD1LG1, programmed cell death 1 ligand 1; programmed cell death 1 ligand 1; B7 homolog 1; B7 H; B7 H1; B7H1; PD L1; PDL1; CD274 antigen; PDCD1 ligand 1; programmed death ligand 1; B7-H; PD-L1; PDCD1L1; PDCD1LG1; MGC142294; MGC142296; |
| **Gene ID** | 29126 |
| **mRNA Refseq** | NM_014143 |
| **Protein Refseq** | NP_054862 |
| **MIM** | 605402 |
| **UniProt ID** | Q9NZQ7 |

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