Active Recombinant Human CD274

Cat. No. CD274-8315H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD274 Protein, was expressed in NSO Cells without tag.
Species	Human
Source	Mammalian Cells
Description	B7-H1, also called programmed death ligand (PD-L1) is a protein in the B7 family of immune proteins. PD-L1 binds to its receptor, PD-1, found on activated T cells, B cells, and myeloid cells, to modulate activation or inhibition. Engagement of PD-L1 with PD-1 on T cells delivers a signal that inhibits TCR-mediated activation of IL-2 production and T cell proliferation. The mechanism involves inhibition of ZAP-70 phosphorylation and its association with CD247. PD-L1 signaling attenuates PKC-8 activation loop phosphorylation (resulting from TCR signaling), necessary for the activation of transcription factors NF-κB and AP-1 and for the production of IL-2. Upon IFN-γ stimulation, PD-L1 is expressed on T cells, NK cells, macrophages, myeloid DCs, B cells, epithelial cells, and vascular endothelial cells. Type I interferons can also upregulate PD-L1 on murine hepatocytes, monocytes, DCs, and tumor cells. It appears that upregulation of PD-L1 is a mechanism that cancers can employ to evade the host immune system as patients with higher expression levels of PD-L1 had a significantly poorer prognosis.
Form	This recombinant protein was 0.2 μm filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.

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Bio-activity	The biological activity of Human B7-H1 was determined by its ability to compete with biotin labeled in rhB7-H1 for the binding of rmPD-1/Fc in a functional ELISA.
Molecular Mass	The predicted molecular weight of Recombinant Human B7-H1 is Mr 52 kDa (monomer). However, the actual molecular weight as observed by migration on SDS-PAGE is Mr 70-75 kDa.
AA Sequence	ft vtvpkdlyvv eygsnmtiec kfpvekqldl aalivyweme dkniiqfvhg eedlkvqhss yrqrarllkd qlslgnaalq itdvklqdag vyrcmisygg adykritvkv napynkinqr ilvvdpvtse heltcqaegy pkaeviwtss dhqvlsgktt ttnskreekl fnvtstlrin tttneifyct frrldpeenh taelvipelp lahppnertd iegrmdpksc dkthtcppcp apellggpsv flfppkpkdt lmisrtpevt cvvvdvshed pevkfnwyvd gvevhnaktk preeqynsty rvvsvltvlh qdwlngkeyk ckvsnkalpa piektiskak gqprepqvyt lppsrdeltk nqvsltclvk gfypsdiave wesngqpenn ykttppvlds dgsfflyskl tvdksrwqqg nvfscsvmhe alhnhytqks lslspgk
Endotoxin	<1.0 eu/μg="" as="" determined="" by="" the="" lal="">
Purity	>90% by SDS-PAGE and analyzed by silver stain.
Storage	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles.

GENE INFORMATION

Gene Name	CD274 CD274 molecule [Homo sapiens]
Official Symbol	CD274
Synonyms	CD274; CD274 molecule; CD274 antigen , PDCD1LG1, programmed cell death 1

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	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
Chromosome Location	9p24.1
Pathway	Adaptive Immune System, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Costimulation by the CD28 family, organism-specific biosystem; Immune System, organism-specific biosystem; PD-1 signaling, organism-specific biosystem;
Function	protein binding; protein tyrosine phosphatase activity; receptor activity;

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