

## 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- $\delta$  activation loop phosphorylation (resulting from TCR signaling), necessary for the activation of transcription factors NF- $\kappa$ B and AP-1 and for the production of IL-2. Upon IFN- $\gamma$  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  $\mu$ m filtered and lyophilized from modified Dulbecco's phosphate buffered saline (1X PBS) pH 7.2 – 7.3 with no calcium, magnesium, or preservatives.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Bio-activity</b>	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.
<b>Molecular Mass</b>	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.
<b>AA Sequence</b>	ft vtvpkdlyvv eygsnmtiec kfpvekqldl aalivyweme dkniiqfvhg eedlkvqhss yrqrarllkd qlslgnaalq itdvklqdag vyrcmisygg adykritvkv napynkinqr ilvdpvtse heltcqaegy pkaeviwts dhqvlsgktt tnskreekl fnvtstlrin ttneifyct frldpeenh taelvipelp lahppnertd iegrm dpksc dkthtppcp apelligpsv flfppkpkt lmisrtpevt cvvvdvshed pevknwyvd gvehnakt preeqynsty rvsvltvlh qdwlngkeyk ckvsnkapa piektiskak gqprepqvyt lpsrdeltk nqvsitclvk gfypsdiave wesngqpenn ykttppvlds dgsfflyskl tvdksrwqqg nvfscsvmhe alhnhytqks lslspgk
<b>Endotoxin</b>	<1.0 eu/μg="" as="" determined="" by="" the="" lal="">
<b>Purity</b>	>90% by SDS-PAGE and analyzed by silver stain.
<b>Storage</b>	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

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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA