

## Active Recombinant Mouse CD274 Antigen, Fc-tagged

**Cat. No.** Cd274-1707M    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

Recombinant Mouse B7-H1 Protein extracellular domain, was expressed in NSO cells with C-terminal human IgG1 Fc tag (fused via linker peptide).

#### Species

Mouse

#### 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

Lyophilized. 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,

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	magnesium, or preservatives.
<b>Bio-activity</b>	The biological activity of Mouse B7-H1 was determined by its ability to inhibit anti-CD3 induced proliferation of 72 hour PHA T cell blast. The expected ED50 for this effect is typically 2.5 - 10 µg/mL.
<b>Molecular Mass</b>	The predicted molecular weight of Recombinant Mouse B7-H1 is Mr 51.3 kDa (monomer). However, the actual molecular weight as observed by migration on SDS Page is Mr 75-85 kDa.
<b>Endotoxin</b>	<1.0 EU/g as determined by the LAL method
<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 antigen [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Cd274
<b>Synonyms</b>	Cd274; B7h1; Pdl1; Pcd111; Pcd1lg1; A530045L16Rik; CD274 antigen; programmed cell death 1 ligand 1; B7 homolog 1; PDCD1 ligand 1; programmed death ligand 1
<b>Gene ID</b>	60533

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<b>mRNA Refseq</b>	NM_021893
<b>Protein Refseq</b>	NP_068693
<b>UniProt ID</b>	Q9EP73
<b>Chromosome Location</b>	19; 19 C2
<b>Pathway</b>	Adaptive Immune System; Cell adhesion molecules (CAMs); Immune System
<b>Function</b>	protein binding

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