

Recombinant Human CD274 Protein, His-tagged

Cat. No. CD274-199C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Cynomolgus Monkey PD-L1 (CD274) Protein (19-239aa), was expressed in human embryonic kidney cell HEK293 with C-terminal human IgG1 Fc tag (Pro100-Lys330).
Species	Cynomolgus
Source	HEK293
ProteinLength	19-239 aa
Description	B7-H1, also known as PD-L1 and CD274, is an approximately 65 kDa transmembrane glycoprotein in the B7 family of immune regulatory molecules. Mature cynomolgus B7-H1 consists of a 220 amino acid (aa) extracellular domain (ECD) with two immunoglobulin-like domains, a 21 aa transmembrane segment, and a 30 aa cytoplasmic domain. Within the ECD, cynomolgus B7-H1 shares 92%, 72%, and 72% aa sequence identity with human, mouse, and rat B7-H1, respectively. In addition, cynomolgus B7-H1 shares 98%, 94%, 94%, 88%, 78%, 98%, 95%, 94%, and 94% aa sequence identity with rhesus macaque, chimpanzee, sumatran orangutan, white-tufted-ear marmoset, Garnett's greater bushbaby, olive baboon, green monkey, western lowland gorilla, and northern white-cheeked gibbon B7-H1, respectively. B7-H1 is expressed on inflammatory-activated immune cells including macrophages, T cells, and B cells, keratinocytes, endothelial and intestinal epithelial cells, as well as a variety of carcinomas and melanoma. B7-H1 is a B7 ligand and binds to B7-1/CD80 and PD-1 receptors on T cells. It suppresses T cell activation and proliferation and

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induces the apoptosis of activated T cells. It plays a role in the development of immune tolerance by promoting T cell anergy and enhancing regulatory T cell development. B7-H1 favors the development of anti-inflammatory IL-10 and IL-22 producing dendritic cells and inhibits the development of Th17 cells. In cancer, B7-H1 provides resistance to T cell mediated lysis, enhances EMT, and enhances the tumorigenic function of Th22 cells. B7-H1/PD-1 coinhibitory pathway was exploited therapeutically resulting in remarkable outcomes with 20-90% response in various types of cancer.

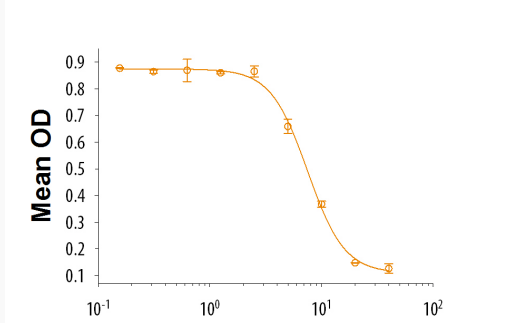
Form	Disulfide-linked homodimer
Molecular Mass	52 kDa
N-terminal Sequence Analysis	Phe19
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Storage	Avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution	Reconstitute at 200 µg/mL in PBS.

GENE INFORMATION

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Gene Name	CD274 CD274 molecule [<i>Macaca fascicularis</i> (crab-eating macaque)]
Official Symbol	CD274
Synonyms	B7-H; B7H1; B7-H1; B7H1PDCD1L1; CD274 antigenMGC142294; CD274 molecule; CD274; PDCD1L1; PDCD1LG1; PDCD1LG1MGC142296; PDL1; PD-L1; PD-L1B7 homolog 1; PDL1PDCD1 ligand 1; programmed cell death 1 ligand 1; Programmed death ligand 1
Gene ID	102145573
mRNA Refseq	XM_005581779
Protein Refseq	XP_005581836
UniProt ID	G7PSE7
Bioactivity	 Recombinant Cynomolgus Monkey PD-L1/B7-H1 Fc Chimera inhibits anti-CD3 antibody-induced IL-2 secretion in human T lymphocytes. The ED50 for this effect is 2-10 µg/mL.