

Recombinant Monkey CD274 Protein, Fc-tagged, Alexa Fluor 647 conjugated

Cat. No. CD274-199CAF647 **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) and Alexa Fluor 647 conjugate.
Species	Monkey
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 Monkey 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, Monkey B7-H1 shares 92%, 72%, and 72% aa sequence identity with human, mouse, and rat B7-H1, respectively. In addition, Monkey 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

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and PD-1 receptors on T cells. It suppresses T cell activation and proliferation and 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	< 0.1 EU/ µg of the protein by the LAL method.
Purity	> 95 % by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie Blue Staining.
Characteristic	Disulfide-linked homodimer Labeled with Alexa Fluor 647 via amines Excitation = 650 nm Emission = 668 nm
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.

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Concentration	200 µg/mL
Storage Buffer	Lyophilized from a 0.2 µm filtered solution in PBS.
Reconstitution	Reconstitute at 200 µg/mL in PBS.
Conjugation	Alexa Fluor 647

GENE INFORMATION

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

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