

DATASHEET

Version 2016-08-02

PD-L1 Fc Chimera, Human**Cat. No.:** Z03371-1**Size:** 1 mg**Synonyms:** PD-L1; CD274; PDCD1L1; PDCD1LG1; B7-H1**Description:**

Programmed death-ligand 1 (PD-L1) also known as cluster of differentiation 274 (CD274) or B7 homolog 1 (B7-H1), is a protein that in humans is encoded by the CD274 gene. PD-L1 is a 40 kDa type 1 transmembrane protein that has been speculated to play a major role in suppressing the immune system during particular events such as pregnancy, tissue allografts, autoimmune disease and other disease states such as hepatitis. Normally the immune system reacts to foreign antigens where there is some accumulation in the lymph nodes or spleen which triggers a proliferation of antigen-specific CD8+ T cell. The formation of PD-1 receptor / PD-L1 or B7.1 receptor /PD-L1 ligand complex transmits an inhibitory signal which reduces the proliferation of these CD8+ T cells at the lymph nodes and supplementary to that PD-1 is also able to control the accumulation of foreign antigen specific T cells in the lymph nodes through apoptosis which is further mediated by a lower regulation of the gene Bcl-2. PD-L1 binds to its receptor, PD-1, found on activated T cells, B cells, and myeloid cells, to modulate activation or inhibition.

Recombinant **Human PD-L1(B7-H1) Fc Chimera** produced in *CHO* cells is a polypeptide chain containing 455 amino acids. A fully biologically active molecule, rh PD-L1(B7-H1) has a molecular mass of 70-72 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

FTVTVPKDLY VVEYGSNMTI ECKFPVEKQL DLAALIVYWE
MEDKNIIQFV HGEEDLKVQH SSYRQRARLL KDQLSLGNAA
LQITDVKLQD AGVYRCMISY GGADYKRITV KVNAPYNKIN
QRILVDPVT SEHELTCQAE GYPKAEVIWT SSDHQVLSGK
TTTTNSKREE KLFNVTSTLR INTTNEIFY CTFRRLDPEE
NHTAELVIPE LPLAHPNER T

Source: *CHO***Species:** Human

Biological Activity: Measured by its binding ability in a functional ELISA. Immobilized rh PD-L1/B7-H1 Fc Chimera at 1 µg/ml (100 µl/well) can bind biotinylated rhPD-1 Fc Chimera with a linear range of 0.1-1 µg/ml when detected by HRP*-Labeled Streptavidin.

Molecular Weight: 70-72kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

Purity: > 98% as analyzed by reducing SDS-PAGE.

Endotoxin Level: <0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant **Human PD-L1(B7-H1)** remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, Human PD-L1(B7-H1) should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

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