

DATASHEET

Version 20181206

PD-L1, His, Human

Cat. No.: Z03425-1

Size: 1.0 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((B7-H1)) is a 40kDa 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. PD-L1(B7-H1) binds to its receptor, PD-1, found on activated T cells, B cells, and myeloid cells, to modulate activation or inhibition. PD-L1(B7-H1) expression is up-regulated in a small fraction of activated T and B cells and a much larger fraction of activated monocytes. PD-L1(B7-H1) expression is also induced in dendritic cells and keratinocytes after IFN-gamma stimulation. Interaction of B7-H1 with PD-1 results in inhibition of TCR-mediated proliferation and cytokine production.

Recombinant Human PD-L1 produced in HEK293 cells is a polypeptide chain containing 227 amino acids with C-terminal 6xHis. A fully biologically active molecule, rhPD-L1 has a molecular mass of 31-35 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

Phe¹⁹-Thr²³⁹ (Accession #: Q9NZQ7-1), expressed with a C-terminal 6xHis

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00001 FTVTVPKDLY VVEYGSNMTI ECKFPVEKQL DLAALIVYWE
00041 MEDKNIIQFV HGEEDLKVQH SSYRQARLL KDQLSLGNAA
00081 LQITDVKLQD AGVYRCMISY GGADYKRITV KVNAPYNKIN
00121 QRILVVDVPT SEHELTCQAE GYPKAEVIWT SSDHQVLSGK
00161 TTTTNSKREE KLFNVTSTLR INTTNEIFY CTFRRDPPE
00201 NHTAELVIPE LPLAHPNER THHHHHH
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Source: HEK293

Biological Activity: Immobilized PD-L1, His, Human at 2 µg/mL (100 µl/well) can bind PD-1 Fc Chimera, Human(Cat: Z03370) with a linear range of 24-390 ng/mL.

Molecular Weight: 31-35 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS, 5% trehalose and mannitol.

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

Purity: >95% as analyzed by reducing SDS-PAGE.

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

Storage: Lyophilized recombinant PD-L1 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human PD-L1 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.