

PD-L1 Protein, Human (HEK293, mFc)

Cat. No.:	HY-P70657
Synonyms:	Programmed Cell Death 1 Ligand 1; PD-L1; PDCD1 Ligand 1; Programmed Death Ligand 1; B7 Homolog 1; B7-H1; CD274; B7H1; PDCD1L1; PDCD1LG1; PDL1
Species:	Human
Source:	HEK293
Accession:	Q9NZQ7 (F19-T239)
Gene ID:	29126
Molecular Weight:	59-89 kDa

PROPERTIES

AA Sequence	<pre> FTVTVPKDLV VVEYGSNMTI ECKFPVEKQL DLAALIVYWE MEDKNI IQFV HGEEDLKVQH SSYRQRARLL KDQLSLGNAA LQITDVKLQD AGVYRCMISY GGADYKRITV KVNAPYNKIN QRILVVDPVT SEHELTCAEA GYPKAEVIWT SSDHQVLSGK TTTTNSKREE KLFNVTSTLR INTTTNEIFY CTFRRLDPEE NHTAELV IPE LPLAHPNER T </pre>
Biological Activity	2 µg/mL (100 µL/well) of immobilized Human PD-L1-mFc can bind Anti-Human PDL1 mAb-FC with an ED50 value of 4.09 µg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	PD-L1 Protein assumes a critical role in both the induction and maintenance of immune tolerance to self, acting as a ligand for the inhibitory receptor PDCD1/PD-1 and thereby modulating the activation threshold of T-cells, ultimately limiting their effector response. Additionally, PD-L1 may function as a costimulatory molecule for T-cell subsets that predominantly
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produce interleukin-10 (IL10) through an as yet unidentified activating receptor. Beyond its role as an immune checkpoint, PD-L1 also acts as a transcription coactivator, translocating into the nucleus in response to hypoxia and interacting with phosphorylated STAT3 to promote the transcription of GSDMC, leading to pyroptosis. Exploited by tumors to attenuate anti-tumor immunity and escape immune system destruction, the PDCD1-mediated inhibitory pathway facilitated by PD-L1 interaction with PDCD1/PD-1 inhibits cytotoxic T lymphocytes (CTLs) effector function. Blocking the PDCD1-mediated pathway has shown promise in reversing exhausted T-cell phenotypes and normalizing anti-tumor responses, providing a rationale for cancer immunotherapy.

Caution: Product has not been fully validated for medical applications. For research use only.

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