

## PD-L1 Protein, Canine (HEK293, His)

<b>Cat. No.:</b>	HY-P78633
<b>Synonyms:</b>	PD-L1; CD274; B7-H1; PDCD1L1; PDCD1LG1
<b>Species:</b>	Canine
<b>Source:</b>	HEK293
<b>Accession:</b>	E2RKZ5 (F19-R236)
<b>Gene ID:</b>	484186
<b>Molecular Weight:</b>	50 & 100 kDa. The reducing (R) protein migrates as 50&100 kDa in SDS-PAGE may be due to glycosylation and multimer structure.

### PROPERTIES

<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized a 0.22 µm filtered solution of 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>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 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.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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