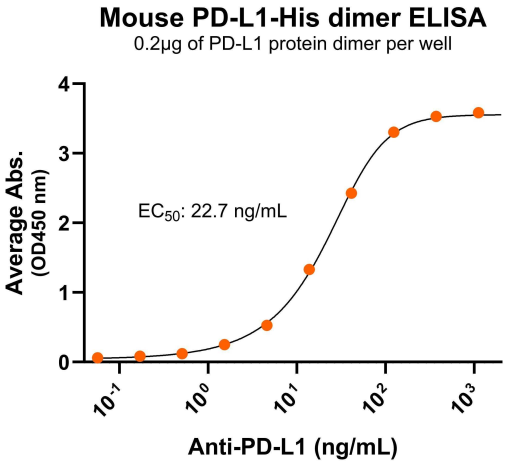
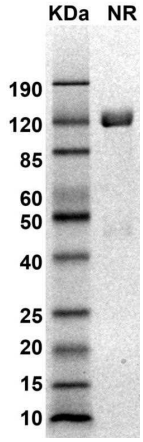
Recombinant Mouse PD-L1 Protein Dimer, His Tag
Product Code: CSP-25190-01
For Research Use Only (RUO)

Bioactivity – Antibody Binding



Immobilized mouse PD-L1 dimer protein, His Tag (CSP-25190-01) at 2 μg/mL (100 μL/well) can bind anti-mouse PD-L1 monoclonal antibody with half maximal effective concentration (EC50) range of 11.4-45.4 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: PD-L1 dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reduced condition is ~120 kDa on SDS PAGE.

Recombinant Mouse PD-L1 Protein Dimer, His Tag
Product Code: CSP-25190-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
PD-L1

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)

Protein Construct
Mouse PD-L1 protein dimer contains a PD-L1 extracellular domain (UniProt# Q9EP73) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
F19-H239

SDS-Page Molecular Weight
66 kDa. The migration range of the dimer protein with glycosylation under non-reduced condition is ~120 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Programmed death-ligand 1 (PD-L1), is a Type I transmembrane protein in the immunoglobulin superfamily and a member of the B7 Family of ligands. PD-L1 is also known as cluster of differentiation 274 (CD274), B7 homolog 1 (B7H1, B7-H1), PDCD1L1, PDCD1LG1, and CD274 molecule. PD-L1 contains an extracellular domain with a distal immunoglobulin V-like (Ig-V-like) domain and proximal immunoglobulin C-like (Ig-C-like) domain, a transmembrane domain, and a cytoplasmic domain. PD-L1 is expressed on T cells, NK cells, macrophages, myeloid DCs, B cells, epithelial cells, and vascular endothelial cells. PD-L1 serves as an immunosuppressive ligand for PD-1 and the overexpression of PD-L1 on many tumor cells can prevent the immune system from attacking tumors. Inhibition of the interaction between PD-1 and PD-L1 can enhance antitumor activity, which has led to a new class of drugs called PD-1 inhibitors to activate the immune system and treat certain types of cancer. PD-L1 is highly expressed in a variety of malignancies, particularly lung cancer. PD-L1 exists as both a monomer and a dimer. Therefore, a recombinant protein mimicking the PD-L1 dimer conformation can be crucial for cancer therapeutic discovery. Mouse PD-L1, the murine homolog of human Programmed Death-Ligand 1 (PD-L1), is a critical immune checkpoint protein involved in regulating immune responses and is indispensable for studying immune checkpoint biology and immunotherapy. It is a species-specific tool essential for basic research, translational research and preclinical studies.