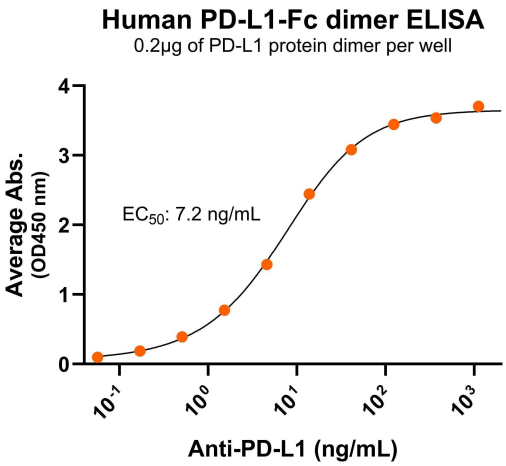
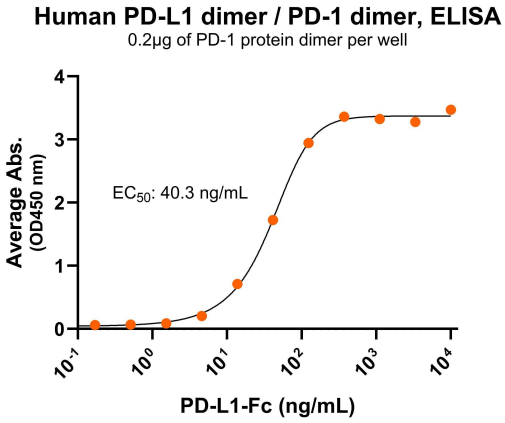
Bioactive, Recombinant Human PD-L1 Protein Dimer, Fc Tag
Product Code: CSP-2594-04
For Research Use Only (RUO)

Bioactivity – Antibody Binding



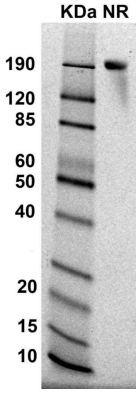
Immobilized human PD-L1-Fc dimer protein (CSP-2594-04) at 2 μg/mL (100 μL/well) can bind anti-human PD-L1 monoclonal antibody with half maximal effective concentration (EC50) range of 3.6-14.4 ng/mL (QC tested).

Bioactivity – Ligand Binding



Immobilized human PD-1-His-Avi dimer protein (CSP-24093-03) at 2 μg/mL (100 μL/well) can bind human PD-L1-Fc dimer protein (CSP-2594-04) with half maximal effective concentration (EC50) range of 20.1-80.5 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 >190 kDa on SDS PAGE.

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Expression Host
HEK293T

Protein Name
PD-L1-hFc

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

Alternate Name(s)
cluster of differentiation 274, CD274, B7-H, B7 homolog 1, B7H1, PDCD1L1, PDCD1LG1, PDL1, CD274 molecule, Programmed cell death ligand 1, hPD-L1

Protein Construct
PD-L1 dimer protein contains a PD-L1 extracellular domain (UniProt# Q9NZQ7) fused with a proprietary dimer motif followed by a Fc tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
F19-238R

SDS-Page Molecular Weight
103 kDa. The migration range of the dimer protein with glycosylation under non-reduced condition is >190 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Human 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. Therefore, a recombinant protein mimicking the PD-L1 dimer conformation can be crucial for cancer therapeutic discovery.