Bioactive, Human PD-L1 Dimer, His-Avi Tag
Product Code: CSP-24094-03
For Research Use Only (RUO)

Protein Name
PD-L1

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 dimer motif followed by a tandem His-Avi tag at the C-terminus. Expressed in HEK293T cell line.

SDS-Page Molecular Weight
70 kDa. The migration range of the dimer under non-reducing conditions is 85-120 kDa on SDS PAGE.

Shipping Conditions
Frozen Dry Ice

Expression Host
HEK293T

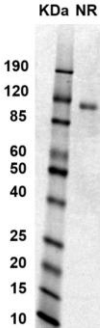
Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Amino Acid Range
F19-238R

Formulation
0.22µm filtered PBS, pH 7.4

Stability & Storage
-80^{0}C

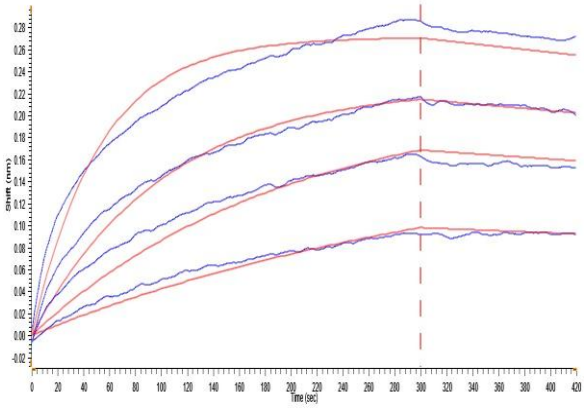
SDS-PAGE



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

The migration range of the dimer under non-reducing conditions is 85-120 kDa on SDS PAGE.

Bioactivity – BLI



Human PD1, human Fc tag on an Anti-Human IgG Fc Gen II probe can bind human PD-L1 dimer protein His-Avi tag (Cat. No. CSP-24094-03) with a KD of 9.9-39.6 nM as determined by BLI.

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.