

21-1001: Recombinant Human PD-L1 Fc Fusion Protein (Active)

Application : Functional Assay, ELISA, FACS, WB

Alternative Name : B7 homolog 1, CD274, B7H1, PDCD1L1, PDCD1LG1, PDL1

Description

Host: CHO-K1 celline. PD-L1 (CD274/B7-H1) is a critical membrane-bound costimulatory molecule belongs to the B7 superfamily that inhibits immune responses through its receptor, PD-1 and PD-L1 play a key role in the pathogenesis of inflammatory diseases (programmed death 1). It is widely expressed in the mononuclear phagocyte system (MPS), may co-stimulate T cells and regulates inflammatory responses. PD-L1 exerts inflammation regulatory functions via a negative co-stimulatory effect on T cell functions to inhibit cytokine secretion, facilitate apoptosis of activated T cells and induce T cell anergy. Aberrant expression and dysregulation of CD274 have been reported during bacterial infection, inflammation and in numerous autoimmune diseases.

Product Info

Amount : 25 µg / 100 µg

Purification : 99% Purity SDS -PAGE and HPLC.

Content : Lyophilized sterile PBS, 5% trehalose and 0.01% tween 80 are added as protectant before lyophilization.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Human PD-L1 (ECD): MRIFAVFIFMTYWHLNAFTVTPKDLVVEYGSNMTIECKFPV
EKQLDLAALIVYWEMEDKNIIQFVHGEEDLKVQHSSYRQRARLL
KDQLSLGNAALQITDVKLQDAGVYRCMISYGGADYKRITVKVNA
PYNKINQRILVVDPTSEHELTCAEGYPKAEVIWTSSDHQVLS
GKTTTNSKREEKLFNVTSTLRINTTTNEIFYCTFRRLDPEENH TAEVPELPLAHPNER

Application Note

Functional assay: Measured by its binding ability in a functional FLOW . Binding assay was tested using CHO-K1/PD-1 (cat no. 14-500ACL).

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method

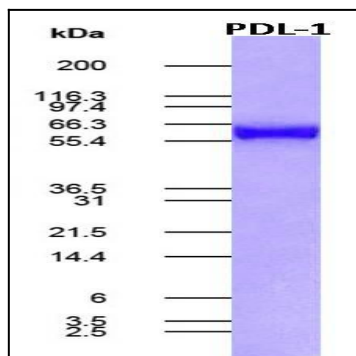


Figure-1: Recombinant Human PD-L1 Fc Fusion Protein. 0.5 ug protein was run on a 4-20% SDS-PAGE gel followed by Coomassie blue staining.

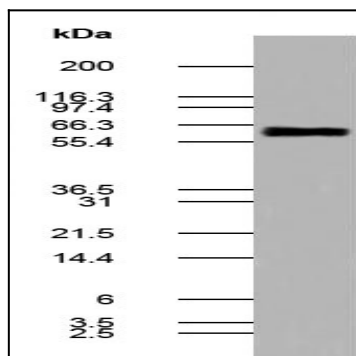


Figure-2: Western blot analysis of Recombinant Human PD-L1 Fc Fusion Protein (0.5ug) using anti-human PD-L1 antibody (Cat. No. 10-7599).

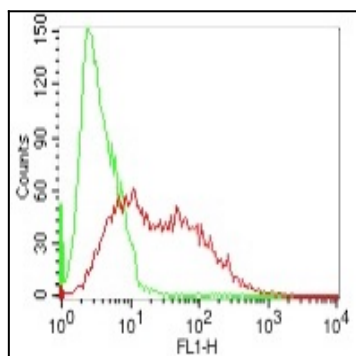


Figure-3: Binding activity of Recombinant Human PD-L1 Fc Fusion Protein to PD-1 was analyzed by flow cytometry. 0.1 ug of Recombinant Human PD-L1 Fc Fusion Protein was incubated with PD-1/CHO-K1 stable cells (Cat. No. 14-500ACL) or with parental CHO-K1 cells at 1×10^6 cells/reaction on ice for 1 h. Cells were washed once and then further incubated with FITC-conjugated goat anti-hFc antibody on ice for 30 min. Cells were washed and then analyzed by flow cytometry. PD-1/CHO-K1 stable cells (Red); Parental CHO-K1 cells (Green).

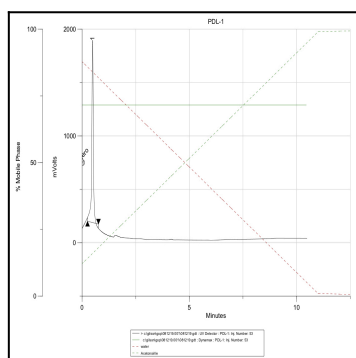


Figure-4: HPLC analysis of Recombinant Human PD-L1 Fc Fusion Protein

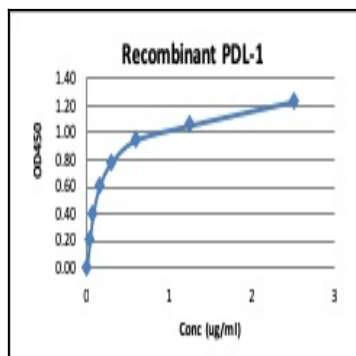


Figure 5: Binding activity of Recombinant Human PD-L1 Fc Fusion Protein to PD-1/CHO stable cell line (14-500ACL) was analyzed by cell based ELISA. PD-1/CHO cells were plated into 96 well ELISA plate over night. Next day, plate was washed in PBS and fixed in fixation buffer (Abeomics) for 15 min. Cells were blocked in blocking reagent (Abeomics) for 30 min. Then, Recombinant Human PD-L1 Fc Fusion Protein was added in different dilution to cells and incubated in room temp. for 1 hr. Plate was wash 3 times in TBST wash buffer. Goat anti-human HRP was added and incubated at room temp. for 30 min. Then plate was washed 4 times in TBST and analyzed in ELISA reader in 450 nm.