

DATASHEET

Version 20181206

PD-L2 Fc Chimera, Human

Cat. No.: Z03417-1

Size: 1.0 mg

Synonyms: B7-DC; bA574F11.2; Btdc; Butyrophilin B7-DC; Butyrophilin-like Protein; CD273 antigen; CD273; CD273PD-1 ligand 2; MGC142240; PD-1-ligand 2; PDCD1L2MGC142238; PDCD1LG2; PDL2; PD-L2

Description:

PD-L1 and PD-L2 are ligands for PD-1, a costimulatory molecule that plays an inhibitory role in regulating T cell activation in the periphery. PD-L2 also known as PD-L2, B7-DC serves as a negative and a positive regulator of T cell function. The expression and function of PD-L2 are similar to PD-L1. Both PD-L2-PD-1 and PD-L1-PD-1 signals inhibit T cell proliferation by blocking cell cycle progression but not by increasing cell death. PD-L2-PD-1 interactions are able to inhibit TCR-mediated proliferation and cytokine production in the absence of CD28 costimulation. Threshold for T cell activation may be a balance between activating signals, such as those delivered by the engagement of CD28 by B7-1 and B7-2, and inhibitory signals, mediated by engagement of PD-1 by PD-L1 and PD-L2. The structural conservation of B7-like and CD28-like receptors may reflect the distance between T cells and APCs in the immunological synapse. The PD-L-PD-1 pathway may play a key role in the induction and/or maintenance of peripheral tolerance and autoimmune disease. Because PD-L1 and PD-L2 can inhibit effector T cell proliferation and cytokine production, the PD-L-PD-1 pathway may be an attractive therapeutic target. Blocking the PD-1 pathway may enhance anti-tumor immunity, whereas stimulating this pathway may be useful for down-regulating ongoing immune responses in transplant rejection and autoimmune and allergic diseases.

Recombinant Human PD-L2 Fc Chimera produced in HEK293 cells is a polypeptide chain containing 432 amino acids with the C-terminal human IgG1 Fc fragment. A fully biologically active molecule, rhPD-L2 has a molecular mass of 75 kDa analyzed by

reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 LFTVTVPKEL YIIHGSNVT LECNFDTGSH VNLGAIASL
00041 QKVENDTSPH RERATLLEEQ LPLGKASFHI PQVQVRDEGQ
00081 YQCIIYGVV WDKYLTLLKV KASYRKINTH ILKVPETDEV
00121 ELTCQATGYP LAEVSFNPVS VPANTSHSRT PEGLYQVTSV
00161 LRLKPPGGRN FSCVFWNTHV RELTLASIDL QSQMEPRTHP
00201
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Source: HEK293

Species: Human

Biological Activity: Immobilized PD-L2 Fc Chimera, Human (Z03417) at 5 µg/mL (100 µL/well) can bind Biotin-PD-1 Fc, Human with a linear range of 2.44-39.06 ng/mL when detected by Streptavidin-HRP.

Molecular Weight: 75 kDa, observed by reducing SDS-PAGE

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS, 5% trehalose and mannitol.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml

Purity: > 97% as analyzed by reducing SDS-PAGE

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant PD-L2 Fc Chimera, Human remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human PD-L2 Fc Chimera should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.