

32-20646: Recombinant Human PD-L1 Fc(Discontinued)

Alternative Name : Programmed Death Ligand 1, Programmed cell death 1 Ligand 1 (PDCD1L1), PD-1, B7-H1 (B7 homolog 1), CD274, SLEB2, SLE1

Description

Source:CHO cells

Programmed death-ligand 1 (PD-L1), or B7-H1, is a transmembrane, co-stimulatory ligand of programmed cell death protein 1 (PD-1) that, along with B7-1 and B7-2, belongs to the B7 family and immunoglobulin superfamily. Though more notably expressed on activated T cells, B cells, myeloid cells, and a subset of thymocytes, PD-L1 is also expressed constitutively by nonlymphoid, parenchymal organs, including the heart, placenta, skeletal muscle, and lung; with the marked exception of the small intestine. As a member of the B7 family, PD-L1 plays a principal role in immunity: suppressing immune response against autoantigens and tumors, maintaining T cell homeostasis, maintaining peripheral immune tolerance, and regulating T-cell-mediated cytokine secretion. Unlike B7-1 and B7-2, PD-L1 has not been shown to influence immunity through interaction with CD28, CTLA-4 or ICOS, but rather through interaction with PD-1, a weak structural homolog of CTLA-4 that belongs to the same superfamily. Involvement of PD-1 suggests an inhibitory function during T cell activation; however, evidence has demonstrated PD-L1's conflicting responsibility for both the stimulation and inhibition of T-cell-mediated cytokine synthesis. While T cell co-stimulation with PD-L1 induces proliferation and the secretion of IL-10 and IFN-Gamma, muscle cell expression of PD-L1 has been shown to inhibit function of CD4 and CD8 T cells by down-regulating cytokine secretion and the expression of T cell activation markers. Augmented expression of PD-L1 has been linked to the inhibition of antitumor immune response in cancer, and the up-regulation of IL-10 production in HIV-infection, resulting in increased susceptibility of antigen-specific T cells to apoptosis. The CHO cell-derived Recombinant Human PD-L1 Fc is a glycosylated, disulfide-linked homodimer of 906 amino acid residues whose monomer consists of the 220-amino-acid length extracellular portion of PD-L1 fused to the 231-amino-acid length Fc portion of human IgG1 by two glycines. The calculated molecular weight of CHO cell-derived Recombinant Human PD-L1 Fc is 102.6 kDa, however, due to glycosylation, it migrates at an apparent molecular weight of approximately 160-170 kDa by SDS-PAGE analysis under non-reducing conditions.

Product Info

Amount : 20 µg / 100 µg

Purification : Purity:>= 95% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : FTVTPKDLV VVEYGSNMTI ECKFPVEKQL DLAALIVYWE MEDKNIIQFV HGEEDLKVQH SSYRQRARLL KDQLSLGNAA LQITDVKLQD AGVYRCMISY GGADYKRITV KVNAPYNKIN QRILVVDVPT SEHELTCQAE GYPKAEVIWT SSDHQVLSGK TTTTNSKREE KLFNVTSTLR INTTNEIFY CTFRRLDPEE NHTAELVIPE LPLAHPNER GGPCKCDKTH TCPPCPAPEL LGGPSVFLFP PKPKDTLMIS RTPEVTCVVV DVSHEDPEVK FNWYVDGVEV HNAKTKPREE QYNSTYRVVS VLTVLHQDWL NGKEYKCKVS NKALPAPIEK TISKAKGQPR EPQVYTLPPS RDELTKNQVS LTCLVKGFYP SDIAVEWESN GQPENNYKTT PPVLDSDGSF FLYSKLTVDK SRWQQGNVFS CSVMHEALHN HYTQKSLSLG PGK

Application Note

Determined by its ability to induce adhesion in T-cell enriched PBMC cultures. The ED₅₀ for this effect is 1.2-2.0 µg/ml.