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32-20650: Recombinant Human PD-1 Fc(Discontinued)

Alternative Name : Programmed cell death protein 1 (PDCD1), CD279, SLEB2, hSLE1

Description

Source:CHO cells
Programmed cell death protein 1 (PD-1), or CD279, is a type I inhibitory transmembrane receptor of the CD28 receptor family that, along with its B7 family ligands, programmed death ligand 1 (PD-L1) and programmed death ligand 2 (PD-L2), belongs to the immunoglobulin superfamily. While other CD28 family members are expressed predominantly in T cells, PD-1 is widely expressed and found in multiple lymphocytes including T cells, B cells, myeloid, and NKT cells upon activation. PD-1 is a negative regulator of immune response, and is referred to as an inhibitory immune checkpoint molecule. Ligation with PD-L1 or PD-L2 results in inhibited activation, proliferation, and cytokine secretion (e.g. IFN-gamma, IL-10) in T cells, ultimately dampening immune response. Despite the strong homology between PD-L1 and PD-L2, each ligand appears to display distinct lymphokine expression patterns and potency. Blockage of PD-1 ligation by monoclonal antibodies has been proven to be an effective anti-tumor treatment by allowing the immune response to remain active and attack the tumorigenic cells that otherwise would have escaped detection. PD-1 and its ligands have been implicated in numerous autoimmune diseases, inflammatory liver disease and cancers. The naturally occurring human PD-1 monomer consists of a 150 amino acid extracellular domain, a 21 amino acid transmembrane domain, and a 97 amino acid cytoplasmic domain. TheÂ CHO cell-derived Recombinant Human PD-1 Fc is a glycosylated, disulfide-linked homodimer of 501 amino acid residues whose monomer consists of the 268-amino-acid length mature PD-1 sequence fused to the 231-amino-acid length Fc portion of human IgG1 by two glycines. The calculated molecular weight of monomericÂ CHO cell-derived Recombinant Human PD-1 Fc is 55.3 kDa, however, due to glycosylation, it migrates at an apparent molecular weight of approximately 180-200 kDa by SDS-PAGE analysis under non-reducing conditions.

Product Info

Amount : 10 µg / 50 µg
Purification : Purity:>= 95% by SDS-PAGE gel and HPLC analyses.
Content : This recombinant protein is supplied in lyophilized form.
Amino Acid : PGWFLDSPDR PWNPPTFSPA LLVVTEGDNA TFTCSFSNTS ESFVLNWYRM SPSNQTDKLA AFPEDRSQPG QDCRFRVTQL PNGRDFHMSV VRARRNDSGT YLCGAISLAP KAQIKESLRA ELRVTERRAE VPTAHPSPSP RPAGQFQTLV VGVVGGLLGS LVLLVWVLAV ICSRAARGTI GARRTGQPLK EDPSAVPVFS VDYGELDFQW REKTPEPPVP CVPEQTEYAT IVFPSGMGTS SPARRGSADG PRSAQPLRPE DGHCSWPLGG PKSCDKTHTC PPCPAPELLG GPSVFLFPPK PKDTLMISRT PEVTCVVVDV SHEDPEVKFN WYVDGVEVHN AKTKPREEQY NSTYRVVSVL TVLHQDWLNG KEYKCKVSNK ALPAPIEKTI SKAKGQPREP QVYTLPPSRD ELTKNQVSLT CLVKGFYPSD IAVEWESNGQ PENNYKTTPP VLDSDGSFFL YSKLTVDKSR WQQGNVFSCS VMHEALHNHY TQKSLSLSPG K

Application Note

Determined by its ability to prevent plate adhesion of PHA-stimulated Jurkat cells in the presence of 625ng/mL of bound hPD-L1. TheÃ□Â ED_{50}Ã□Â for this effect is 2500ng/mL.