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32-20635: Recombinant Human CTLA-4 Fc(Discontinued)

Alternative Name : Cytotoxic T-Lyphocyte-associated antigen 4, CD152

Description

Source:CHO cells
CTLA-4 and CD28 are receptors of the immunoglobulin superfamily that are expressed, along with the transmembrane glycoproteins B7-1 and B7-2, by antigen-presenting cells, and with these ligands constitute crucial co-stimulatory pathways for T and B cell regulatory responses. It is through engagement with CD28 and CTLA-4 that the B7 family ligands B7-1 and B7-2 play principal roles in immunity by activating immune response and maintaining immune tolerance. Co-stimulatory signals generated by B7-1 and B7-2 interactions with CD28 serve to stimulate T cell activation and prevent anergy through the amplification of T cell receptor (TCR) signaling. In contrast, interactions of the ligands with CTLA-4 serves to maintain T cell homeostasis and self-tolerance through the disruption of stimulatory signaling from B7 isoform-bound CD28 complexes, and by inducing powerful inhibitory signals in T cells. CTLA-4, like B7-1, is only poorly expressed on resting dendritic cells; therefore, up-regulation of their interaction and resultant amplification and regulation of T cell activity at peripheral inflammation sites is considerably delayed upon immune activation. Conversely, B7-2 and CD28 are constitutively expressed by resting hematopoietic and T cells, respectively, and as a result are able to rapidly induce up-regulation upon immune activation, making them critical to the early co-stimulatory signaling of immune response. Unlike B7-1 and B7-2, the ligands PD-L1 (or B7-H1) and B7-H2, which also belong to the B7 family, have not been shown to influence immunity through interaction with CTLA-4. B7-H2 has been shown to have restricted interaction with CD28. The difference in expression of B7-1, B7-2 and B7-H2 may enable temporally and spatially-specific regulation of T cell response through non-competitive CD28 interaction. The CHO cell-derived Recombinant Human CTLA-4 Fc is a glycosylated, disulfide-linked homodimer of 714 amino acid residues whose monomer consists of the 124-amino-acid length extracellular portion of CTLA-4 fused to the 231-amino-acid length Fc portion of human IgG1 by two glycines. The calculated molecular weight of Recombinant Human CTLA-4 Fc dimer is 78.7 kDa; however, due to glycosylation, the monomer and dimer migrate at apparent molecular weights of approximately 45Â–50 kDa and 80Â–90 kDa by SDS-PAGE analysis under reducing conditions.

Product Info

Amount : 50 µg / 200 µg
Purification : Purity:>= 98% by SDS-PAGE gel and HPLC analyses.
Content : This recombinant protein is supplied in lyophilized form.
Amino Acid : MHVAQPAVVL ASSRGIASFV CEYASPGKAT EVRVTVLRQA DSQVTEVCAA TYMMGNELTF LDDSICTGTS SGNQVNLTIQ GLRAMDTGLY ICKVELMYPP PYYLGIGNGT QIYVIDPEPC PDSDGGPKSC DKTHTCPPCP APELLGGPSV FLFPPKPKDT LMISRTPEVT CVVVDVSHED PEVKFNWYVD GVEVHNAKTK PREEQYNSTY RVVSVLTVLH QDWLNGKEYK CKVSNKALPA PIEKTISKAK GQPREPQVYT LPPSRDELTK NQVSLTCLVK GFYPSDIAVE WESNGQPENN YKTTPPVLDS DGSFFLYSKL TVDKSRWQQG NVFSCSVMHE ALHNHYTQKS LSLSPGK

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