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32-20649: Recombinant Human ICOS Fc(Discontinued)

Alternative Name : Inducible T-cell costimulator, CD278, Activation-inducible lymphocyte immunomediatory molecule (AILIM), CRP-1, CVID1

Description

Source:CHO cells
Inducible T cell co-stimulator (ICOS) is a T cell-specific, surface receptor of the immunoglobulin superfamily that binds inducible costimulatory ligand (ICOSL), alternatively referred to as B7-H2, to play a critical role in the development and function of regulatory T cells (Tregs). ICOS joins CD28, CTLA-4 and PD-1 as a member of the growing CD28/CTLA-4 family of costimulatory immunoreceptors that function synergistically with members of the B7 family of transmembrane ligands, including B7-1, B7-2, B7-H1 (PD-L1), B7-H2 and PD-L2, to constitute crucial costimulatory pathways for T cell and B cell regulatory responses. As the main receptor of B7-H2, ICOS can have both negative and positive influence over immune response, including the direct downregulation of B7-H2, and is critically involved in the immunosuppression of tumor-associated memory CD4+ T-cells. Interaction between ICOS and B7-H2 on the surface of antigen presenting cells potentiates costimulatory signals responsible for enhancing basic T cell response to foreign antigens, namely the augmentation of T cell proliferation, the upregulation of molecules responsible for mediating intercellular interaction, and the secretion of cytokines such as IL-4, IL-10 and IL-21. The significant involvement of ICOS and B7-H2 interaction within an array of immunological responses, such as those of Th1, Th2 and Th17 cells, means that the blockade of this interaction has been linked to a number of autoimmune diseases, including rheumatoid arthritis (RA), inflammatory bowel disease (IBD), type 1 diabetes, and graft versus host disease (GVHD). Unlike CD28, which is constitutively expressed on the surface of T cells where it has restricted interaction with B7-H2, ICOS is expressed at low levels on naive T cells and is upregulated on activated T cells and regulatory T cells (Tregs) after TCR ligation and CD28 stimulation. The CHO cell-derived Recombinant Human ICOS Fc is a glycosylated, homodimer 79.4 kDa of 706 amino acid residues whose monomer consists of the 120-amino-acid-length extracellular portion of ICOS fused to the 231-amino-acid-length Fc portion of human IgG1 by two glycines. The calculated molecular weight of Recombinant Human ICOS Fc dimer is 79.4 kDa; however, due to glycosylation, it migrates at an apparent molecular weight of approximately 40-45 kDa by SDS-PAGE analysis under 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 : EINGSANYEM FIFHNGGVQI LCKYPDIVQQ FKMQLLKGGQ ILCDLTKTKG SGNTVSIKSL KFCHSQLSNN SVSFFLYNLD HSHANYYFCN LSIFDPPPFK VTLTGGYLHI YESQLCCQLK GGPKSCDKTH TCPPCPAPEL LGGPSVFLFP PKPKDTLMIS RTPEVTCVVV DVSHEDPEVK FNWYVDGVEV HNAKTKPREE QYNSTYRVVS VLTVLHQDWL NGKEYKCKVS NKALPAPIEK TISKAKGQPR EPQVYTLPPS RDELTKNQVS LTCLVKGFYP SDIAVEWESN GQPENNYKTT PPVLDSDGSF FLYSKLTVDK SRWQQGNVFS CSVMHEALHN HYTQKSLSLS PGK

Application Note

Determined by its ability to cause adhesion of the human HL-60 monocytic cells in the presence of 2% PHA.