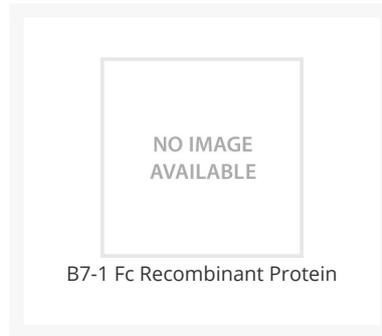




B7-1 Fc Recombinant Protein

Cat. No.: 40-693



Ψ Specifications

SPECIES:	Human
SOURCE SPECIES:	CHO cells
SEQUENCE:	<p>VIHVTKEVKE VATLSCGHNV SVEELAQTRI YWQKEKKMVL TMMSGDMNIW PEYKNRTIFD ITNNLSIVIL ALRPSDEGTY ECVLKYEKD AFKREHLAEV TLSVKADFPT PSISDFEIPT SNIRRIICST SGGFPEPHLS WLENGEELNA INTTVSQDPE TELYAVSSKL DFNMTTNHSF MCLIKYGHLR VNQTFNWNTT KQEHFPDNGG PKSCDKTHC PPCAPELLG GPSVFLFPPK PKDTLMISRT PEVTCVVDV SHEDPEVKFN WYVDGVEVHN AKTKPREEQY NSTYRVSVL TVLHQDWLNG KEYKCKVSNK ALPAIEKTI SKAKGQPREP QVYTLPPSRD ELTKNQVSLT CLVKGFYPSD IAVEWESNGQ PENNYKTPPP VLDSGGSFFL YSKLTVDKSR WQQGNVFSCS VMHEALHNHY TQKSLSLSPG K</p>

Ψ Properties

PURITY:	≥ 95% by SDS-PAGE gel and HPLC analyses.
PHYSICAL STATE:	Lyophilized
STORAGE CONDITIONS:	<p>The recombinant protein is stable for at least 2 years from date of receipt at -20 °C. Reconstituted protein is stable for at least 3 months when stored in working aliquots with a carrier protein at -20 °C. As with any protein, exposing the recombinant protein to repeated freeze / thaw cycles is not recommended. When working with proteins care should be taken to keep recombinant protein at a cool and stable temperature.</p>

OFFICIAL SYMBOL:	CD80
ALTERNATE NAMES:	B7, BB1, CD80
GENE ID:	941

Background and References

BACKGROUND:	<p>B7-1 and B7-2 are transmembrane glycoproteins of the immunoglobulin superfamily that are expressed, along with the receptors CD28 and CTLA-4, by antigen-presenting cells, and along with these receptors, constitute crucial co-stimulatory pathways for T and B cell regulatory responses. As members of the B7 family, B7-1 and B7-2 play principal roles in immunity, activating immune response and maintaining immune tolerance through engagement with CD28 and CTLA-4. 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. B7-1 plays an important role in immune response through its amplification and regulation of T cell activity at peripheral inflammation sites. B7-1, like CTLA-4, is, however, only poorly expressed on resting dendritic cells, and its up-regulation is, therefore, 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. Both B7-1 and B7-2 have been shown to demonstrate co-stimulatory activity in T cell proliferation in vitro and elicit enhanced antitumor immune response in vivo. Recombinant Human B7-1Fc is a homodimeric B7-1 fusion protein, whose monomer contains a total of 441 amino acid residues, consisting of 211 amino acid residues corresponding to the extracellular domain of human B7-1, fused to the Fc portion of human IgG1. The calculated molecular weight of the B7-1 Fc monomer is 50.0 kDa.</p>
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