

Recombinant Human CD80, Fc-tagged

Cat. No. CD80-148H Lot. No. (See product label)

SPECIFICATION

Product Overview

The extracellular domain of human CD80 (aa 35-242) is fused to the N-terminus of the Fc region of human IgG1.

Species

Human

Source

CHO

ProteinLength

35-242 a.a.

Description

CD80 (B7-1) and CD86 (B7-2) together with their receptors CD28 and CTLA-4 constitute one of the dominant costimulatory pathways that regulate T cell and B cell responses. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. B7-1 is expressed on activated B cells, activated T cells and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B7-2 is expressed at low levels on monocytes and can be up-regulated through interferon- γ . B7-1 and B7-2 are both members of the immunoglobulin superfamily. It has been observed that both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4, suggesting that there are conserved amino acids which form the B7-1/B7-2/CD28/CTLA-4 critical binding sites.

Form

Lyophilized from 0.2 μ m-filtered solution in PBS.

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Purity	≥98% (SDS-PAGE)
Stability	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.
Storage	Short Term Storage: +4°C; Long Term Storage: -20°C. Avoid freeze/thaw cycles.
GENE INFORMATION	
Gene Name	CD80 CD80 molecule [Homo sapiens]
Official Symbol	CD80
Synonyms	CD80; CD80 molecule; CD28LG, CD28LG1, CD80 antigen (CD28 antigen ligand 1, B7 1 antigen) , CD80 molecule; T-lymphocyte activation antigen CD80; B lymphocyte activation antigen B7; B7 1; B7.1; activation B7-1 antigen; costimulatory factor CD80; CTLA-4 counter-receptor B7.1; B-lymphocyte activation antigen B7; costimulatory molecule variant IgV-CD80; CD80 antigen (CD28 antigen ligand 1, B7-1 antigen); B7; BB1; B7-1; LAB7; CD28LG; CD28LG1;
Gene ID	941
mRNA Refseq	NM_005191
Protein Refseq	NP_005182
MIM	112203
UniProt ID	P33681
Chromosome	3q13.3-q21

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Location**Pathway**

Adaptive Immune System, organism-specific biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem; CD28 co-stimulation, organism-specific biosystem; CD28 dependent PI3K/Akt signaling, organism-specific biosystem;

Function

coreceptor activity; protein binding; receptor activity;

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