

# Active Recombinant Human CD80 protein, His/Avi-tagged, Biotinylated

**Cat. No.** CD80-052H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Biotinylated Recombinant Human CD80(Val35-Asn242) protein, fused to His/Avi tag at the C-terminus, was expressed in CHO cells .
<b>Species</b>	Human
<b>Source</b>	CHO
<b>ProteinLength</b>	Val35-Asn242
<b>Description</b>	<p>B7-1/CD80 and B7-2/CD86, together with their receptors CD28 and CTLA-4, constitute one of the dominant co-stimulatory pathways that regulate T- and B-cell responses (1). 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 (2-6). Mature human B7-1 consists of a 208 aa extracellular domain (ECD) with two immunoglobulin-like domains, a 21 aa transmembrane domain, and a 25 aa cytoplasmic domain (7). Within the ECD, human B7-1 shares 50% aa sequence identity with mouse and rat B7-1. Alternative splicing generates a 30 kDa soluble isoform that lacks the transmembrane segment and retains the ability to bind CD28 and CTLA-4 and an isoform that lacks the second Ig-like domain and the transmembrane segment (8). Both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4 (1). B7-1 is expressed on activated B cells, activated T cells, and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells,</p>

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	Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells (2).
<b>Predicted N Terminal</b>	Val35
<b>Form</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
<b>Bio-activity</b>	Measured by its binding ability in a functional ELISA. When Recombinant Human CTLA4 Fc Chimera is immobilized at 1 µg/mL (100 µ/well), Biotinylated Recombinant Human CD80 His-tag Avi-tag binds with an ED50 of 0.1-0.6 µg/mL.
<b>Molecular Mass</b>	48-60 kDa
<b>Endotoxin</b>	<0.10 EU per 1 µg of the protein by the LAL method.
<b>Purity</b>	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
<b>Applications</b>	Bioactivity
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
<b>Reconstitution</b>	Reconstitute at 500 µg/mL in PBS.
<b>Conjugation</b>	Biotin

## GENE INFORMATION

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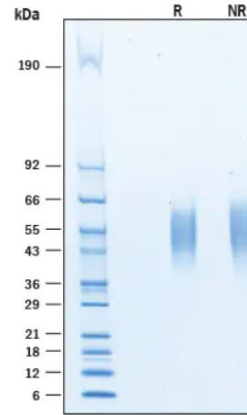
<b>Gene Name</b>	CD80 CD80 molecule [ Homo sapiens ]
<b>Official Symbol</b>	CD80
<b>Synonyms</b>	CD80; CD80 molecule; CD28LG, CD28LG1, CD80 antigen (CD28 antigen ligand 1, B7 1 antigen) , CD80 molecule; T-lymphocyte activation antigen CD80; B lymphocyte activation antigen B7; B7 1; B7.1; activation B7-1 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;
<b>Gene ID</b>	941
<b>mRNA Refseq</b>	NM_005191
<b>Protein Refseq</b>	NP_005182
<b>MIM</b>	112203
<b>UniProt ID</b>	P33681

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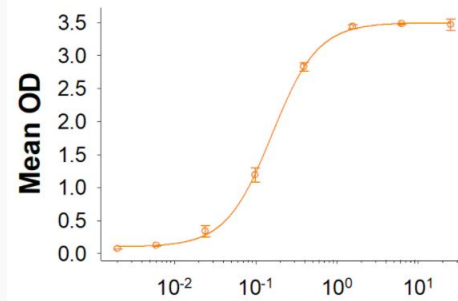
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**SDS-PAGE**




2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

**Binding Activity**



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