

CD80 (B7-1) Active Protein | CD80 active protein

Human CD80 Recombinant (B7-1)

CATALOG #	HOST
AAA76080	HEK293 Cells (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

CD80 (B7-1); Human CD80 Recombinant (B7-1); Human CD80 Recombinant (B7-1) ; CD80; B7-1; CD80 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>90%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant CD80 was lyophilized from 0.2um filtered 50mM Tris, 100mM NaCl, pH 8.0.
Sequence Length	214
Domain	Ig-like C2
Host Note	Optimized DNA sequence encoding Human extracellular domain of human CD80 including a C-terminal 6His tag was expressed in HEK293 cells.
Biological Activity	The activity was tested by immobilized recombinant CD80 (1ug/ml) ability to bind recombinant human CD28 in functional ELISA.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Molecular Weight Note	Recombinant CD80 is a monomer protein consisting of 214 amino acid residue subunits, due to glycosylation migrates as an approximately 45 kDa protein on SDS-PAGE.
Preparation and Storage	Recombinant CD80, as supplied, can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C to -70 degree C for twelve months. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for CD80 active protein	CD80 is a monomeric surface protein found on activated APCs. The extracellular region of CD80 consists of two highly glycosylated Ig- like extracellular domains, which have defined regions for binding its ligands, CD28 or CTLA-4, on T cells. One ligand of CD80, CD28, provides critical costimulatory signals to activated T cells to increase cytokine production, cell proliferation, and cell viability, while the other ligand, CTLA-4, may mediate a growth-inhibitory signal. The same regions of CD80 are involved in binding to both CD28 and CTLA-4, but CTLA-4 binds to CD80 with about a 20-fold higher avidity than CD28 does. This suggests that low levels of CTLA-4 expressed on the cell surface can compete for CD80 binding even when CD28 is expressed at much higher levels.
Product Categories/Family for CD80 active protein	Receptors CD

References	• tumor cell programmed death ligand 1-mediated t cell suppression is overcome by coexpression of CD80 .<i>J. Immunol.</i>, Jun 2011; 186: 6822 - 6829. • toll-like receptor 3 ligands induce CD80 expression in human podocytes via an nf-b-dependent pathway .<i>Nephrol. Dial. Transplant.</i>, May 2011; 10.1093/ndt/gfr271. • trans-endocytosis of CD80 and cd86: a molecular basis for the cell-extrinsic function of ctla-4 .<i>Science</i>, Apr 2011; 332: 600 - 603. • critical role of transcription factor pu.1 in the expression of CD80 and cd86 on dendritic cells .<i>Blood</i>, Feb 2011; 117: 2211 - 2222. • enhancement of suboptimal cd8 cytotoxic t cell effector function in vivo using antigen-specific CD80 defective t cells .<i>J. Immunol.</i>, Jan 2011; 186: 291 - 304.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4885123
NCBI GeneID	941
NCBI Accession #	NP_005182.1
NCBI GenBank Nucleotide #	NM_005191.3
UniProt Accession #	P33681; Q5DTA9; Q5DTB0; Q6LCB7
Molecular Weight	33,048 Da
NCBI Official Full Name	T-lymphocyte activation antigen CD80
UniProt Protein Name	T-lymphocyte activation antigen CD80
UniProt Gene Name	CD80
UniProt Synonym Gene Names	CD28LG; CD28LG1; LAB7; B7
UniProt Entry Name	CD80_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/cd80-b7-1/76080>