

# Recombinant Human B7-1/CD80 Protein

Catalog No.: RP00562 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	941	P33681-1

### Tags

C-His&Avi

### Synonyms

CD80 molecule; B7; B71; B7-1; BB1;  
CD28LG1; CD80; B7.1; CD28LG1; LAB7

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE > 95% by HPLC

### Endotoxin

< 1 EU/μg of the protein by LAL method

### Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Cluster of differentiation 80 (also CD80 and B7-1) is a protein found on dendritic cells, activated B cells and monocytes that provides a costimulatory signal necessary for T cell activation and survival. It is the ligand for two different proteins on the T cell surface: CD28 and CTLA-4.

## Basic Information

### Description

Recombinant Human B7-1/CD80 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Val35-Asn242) of Human B7-1/CD80 (Accession #P33681-1) fused with a C-His&Avi tag at the C-terminus.

### Bio-Activity

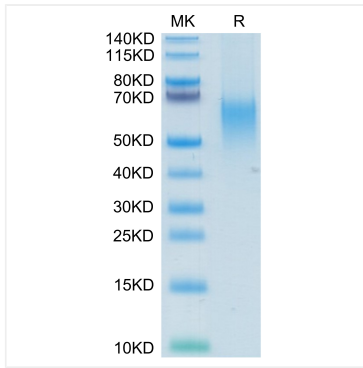
#### Storage

Store the lyophilized protein at -20°C to -80°C for 12 months.

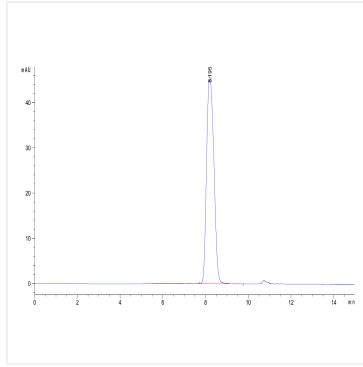
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

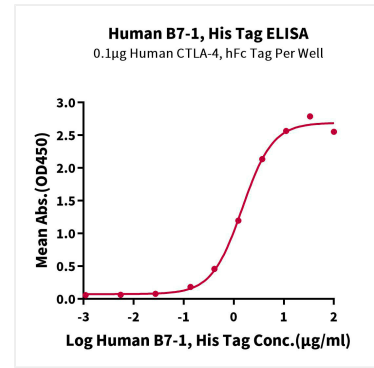
## Validation Data



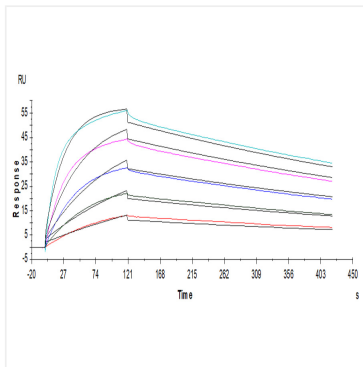
Human B7-1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



The purity of Human B7-1 is greater than 95% as determined by SEC-HPLC.



Immobilized Human CTLA-4, hFc Tag at 1 µg/mL (100 µL/well) on the plate. Dose response curve for Human B7-1, His Tag with the  $EC_{50}$  of 1.48 µg/mL determined by ELISA (QC Test).



Human B7-1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human CTLA4, hFc Tag with an affinity constant of 1.1nM as determined in SPR assay (Biacore T200).