

# Recombinant Human B7-1/CD80 Protein

Catalog No.: RP00564 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	941	P33681-1

### Tags

C-hFc

### 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

Calculated MW	Observed MW
50.5 kDa	70-80 kDa

### 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-hFc tag at the C-terminus.

### Bio-Activity

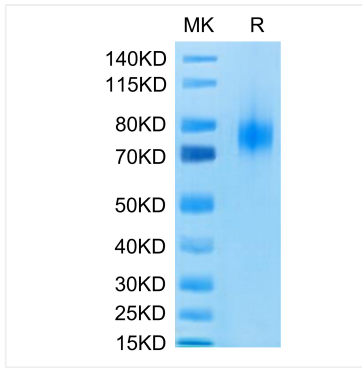
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

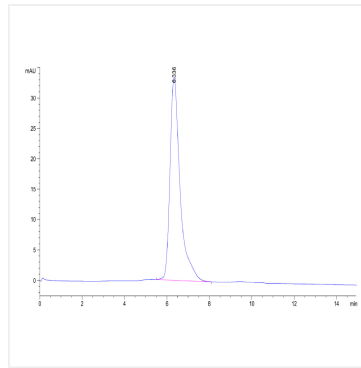
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

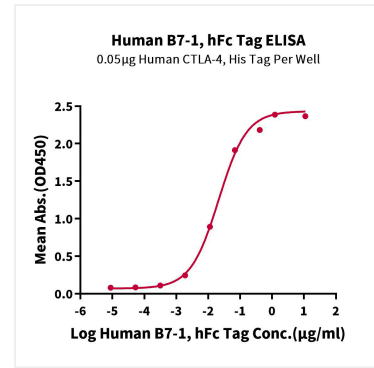
## Validation Data



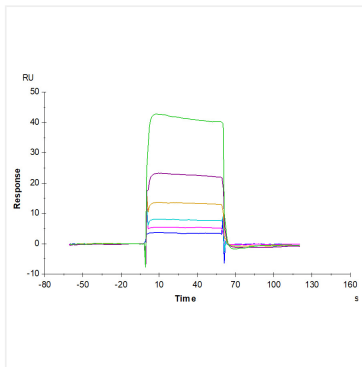
Human B7-1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.



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



Immobilized Human CTLA-4, His Tag at 0.5 µg/mL (100 µL/well) on the plate. Dose response curve for Human B7-1, hFc Tag with the  $EC_{50}$  of 21.4ng/mL determined by ELISA (QC Test).



Human B7-1, hFc Tag captured on CM5 Chip via Protein A can bind Human/Cynomolgus/Rhesus macaque CD28, His-Avi Tag with an affinity constant of 43.61 µM as determined in SPR assay (Biacore T200).