

# Human B7-1/CD80 Protein

Cat. No. B71-HM480

## Description

<b>Source</b>	Recombinant Human B7-1/CD80 Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Val35-Asn242.
<b>Accession</b>	P33681-1
<b>Molecular Weight</b>	The protein has a predicted MW of 26.8 kDa. Due to glycosylation, the protein migrates to 50-70 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

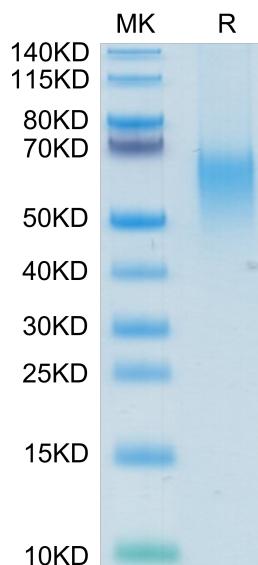
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## 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.

## Assay Data

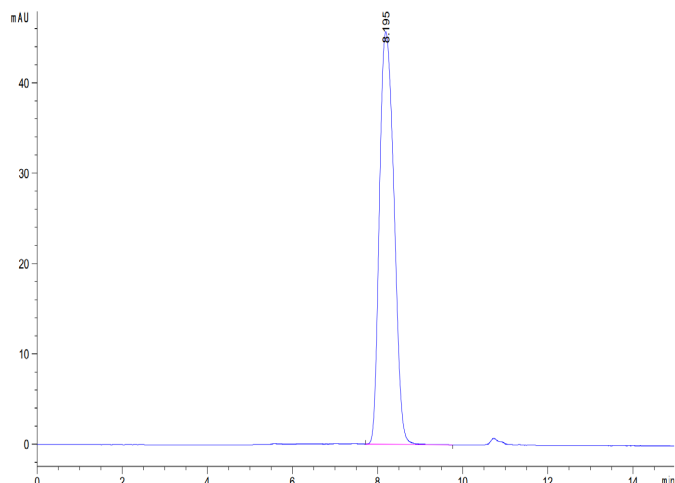
### Bis-Tris PAGE



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

### SEC-HPLC

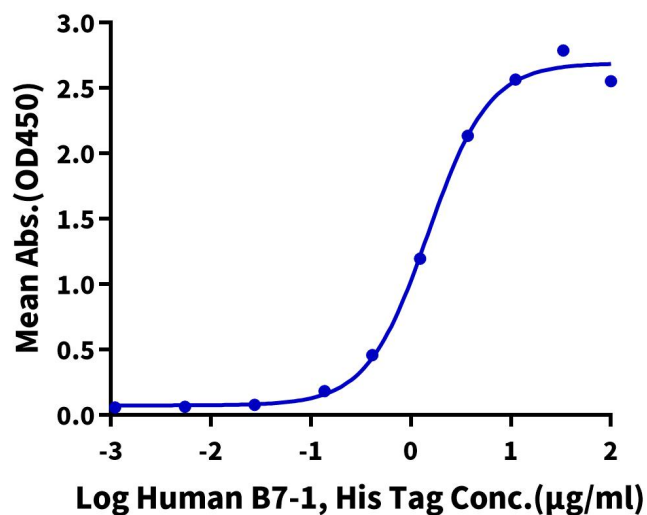
Assay Data



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

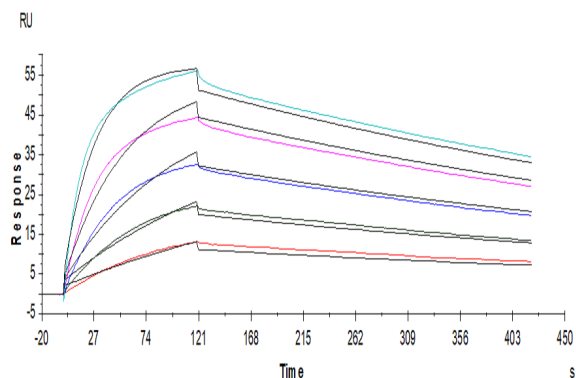
ELISA Data

**Human B7-1, His Tag ELISA**  
0.1µg Human CTLA-4, hFc Tag Per Well



Immobilized Human CTLA-4, hFc Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human B7-1, His Tag with the EC50 of 1.48µg/ml determined by ELISA (QC Test).

SPR Data



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).