

# Human B7-1/CD80 Protein

Cat. No. B71-HM280



## Description

<b>Source</b>	Recombinant Human B7-1/CD80 Protein is expressed from HEK293 with hFc 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 50.5 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Tris-Bis PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Tris-Bis PAGE > 95% as determined by HPLC

## Formulation and Storage

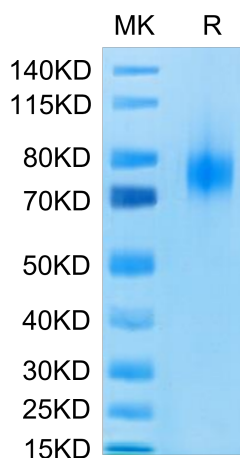
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days 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.

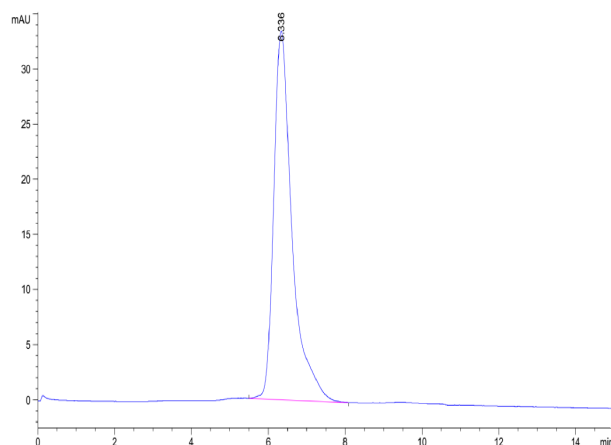
## Assay Data

### Tris-Bis PAGE



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

### SEC-HPLC



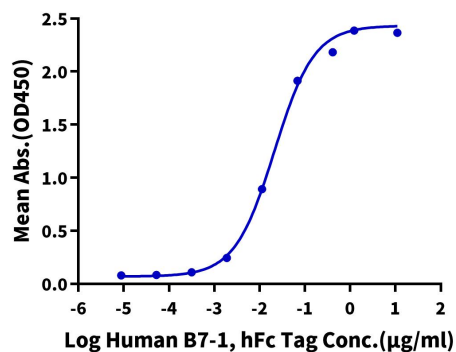
The purity of Human B7-1 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

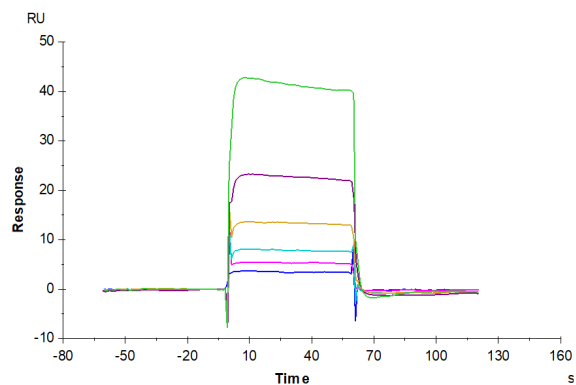
Human B7-1, hFc Tag ELISA

0.05µg Human CTLA-4, His Tag Per Well



Immobilized Human CTLA-4, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Human B7-1, hFc Tag with the EC50 of 21.4ng/ml determined by ELISA (QC Test).

SPR Data



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).