

Human B7-1/CD80 Protein

Cat. No. B71-HM280

Description

Source	Recombinant Human B7-1/CD80 Protein is expressed from HEK293 with hFc tag at the C-Terminus. It contains Val35-Asn242.
Accession	P33681-1
Molecular Weight	The protein has a predicted MW of 50.5 kDa. Due to glycosylation, the protein migrates to 70-80 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

Formulation and Storage

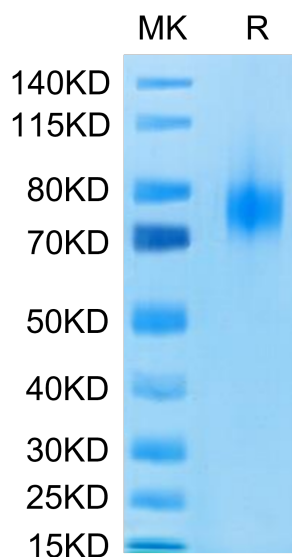
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-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

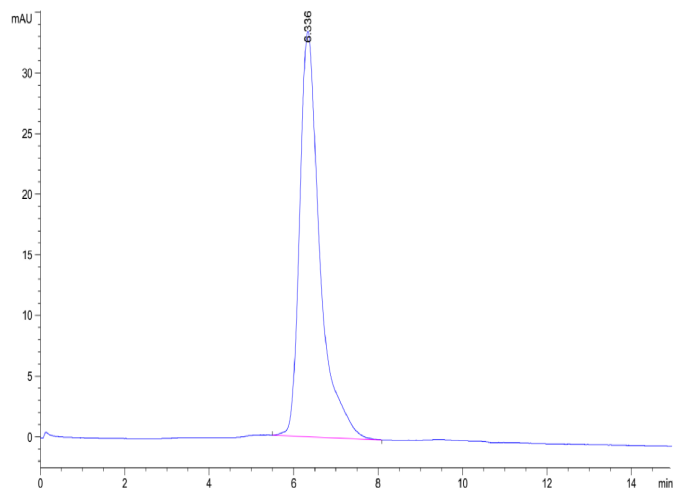
Bis-Tris PAGE



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

SEC-HPLC

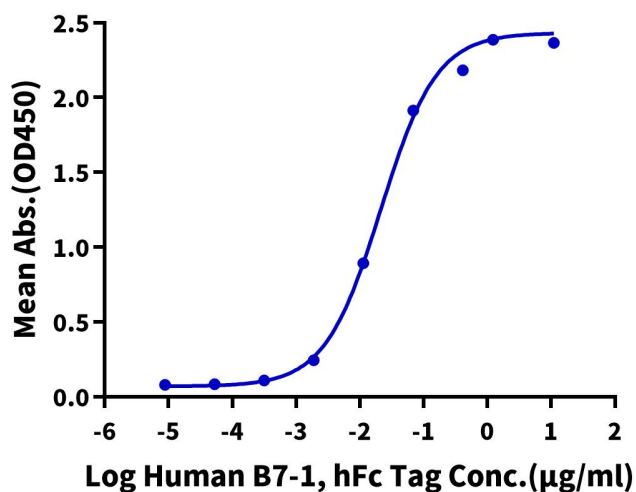
Assay Data



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

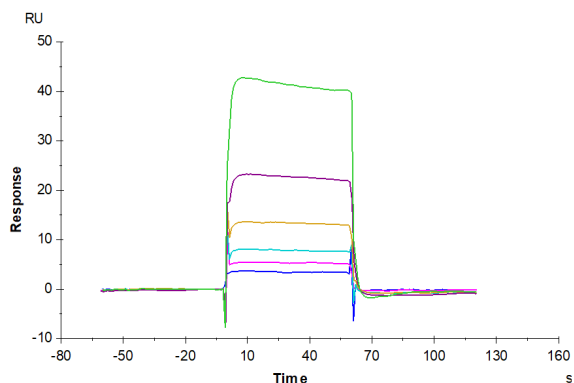
ELISA Data

Human B7-1, 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).