



**Synonym**

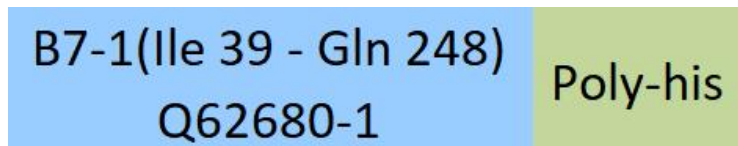
CD80,B7,B7-1,B7.1,BB1,CD28LG,CD28LG1,LAB7

**Source**

Rat B7-1, His Tag(B71-R52H9) is expressed from human 293 cells (HEK293). It contains AA Ile 39 - Gln 248 (Accession # [Q62680-1](#)).

Predicted N-terminus: Ile 39

**Molecular Characterization**



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 25.8 kDa. The protein migrates as 35-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

**Storage**

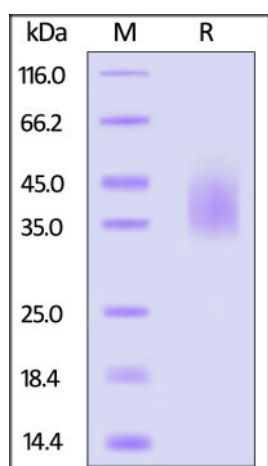
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

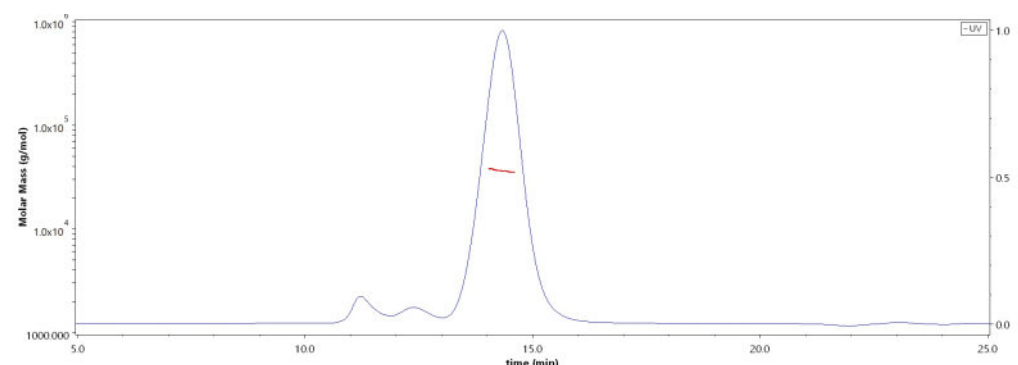
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**



Rat B7-1, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**SEC-MALS**



The purity of Rat B7-1, His Tag (Cat. No. B71-R52H9) is more than 85% and the molecular weight of this protein is around 30-45 kDa verified by SEC-MALS.

[Report](#)

**Bioactivity-ELISA**

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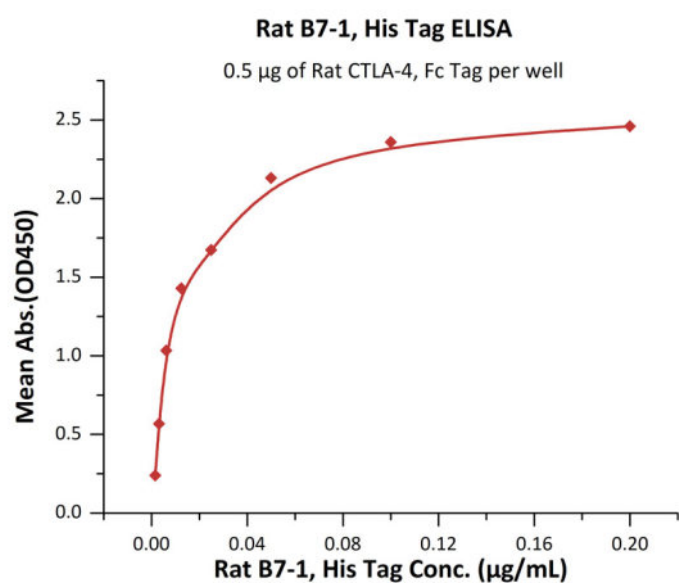


# Rat B7-1 / CD80 Protein, His Tag (MALS verified)

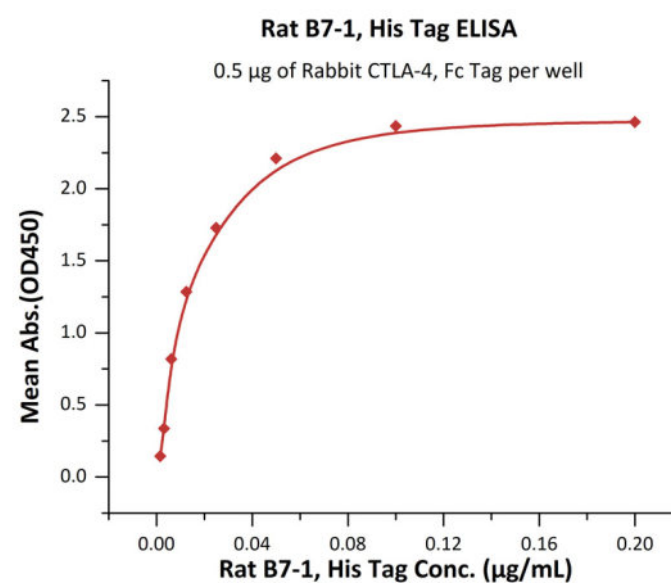
Catalog # B71-R52H9



BIOSYSTEMS  
**Acro**



Immobilized Rat CTLA-4, Fc Tag (Cat. No. CT4-R5259) at 5 µg/mL (100 µL/well) can bind Rat B7-1, His Tag (Cat. No. B71-R52H9) with a linear range of 0.002-0.05 µg/mL (QC tested).



Immobilized Rabbit CTLA-4, Fc Tag (Cat. No. CT4-R5250) at 5 µg/mL (100 µL/well) can bind Rat B7-1, His Tag (Cat. No. B71-R52H9) with a linear range of 0.002-0.05 µg/mL (Routinely tested).

## Background

B7-1 and B7-2, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T and B cell responses. Although both CTLA4 and CD28 can bind to the same ligands, CTLA4 binds to B71 and B72 with a 20-100 fold higher affinity than CD28 and is involved in the downregulation of the immune response.

B-lymphocyte activation antigen B7-1 (referred to as B7) also known as cluster of Differentiation 80 (CD80), is a member of cell surface immunoglobulin superfamily and is expressed on activated B cells, activated T cells, macrophages and dendritic cells. It is the ligand for two different proteins on the T cell surface: CD28 (for autoregulation and intercellular association) and CTLA-4 (for attenuation of regulation and cellular disassociation). CD80 works in tandem with CD86 to prime T cells. CD80 plays a role in induction of innate immune responses by activating NF-κB-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

## Clinical and Translational Updates

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