

**Synonym**

CD86,B7-2,B70,CD28LG2,LAB72,MGC34413

**Source**

Rat B7-2, His Tag(CD6-R52H9) is expressed from human 293 cells (HEK293).

It contains AA Val 29 - Ile 250 (Accession # [O35531-1](#) ).

Predicted N-terminus: Val 29

**Molecular Characterization**

B7-2(Val 29 - Ile 250)  
O35531-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 27.3 kDa. The protein migrates as 40-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

&gt;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.

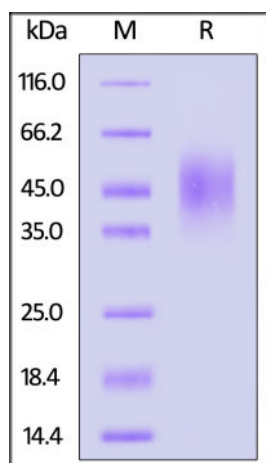
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

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

*Please avoid repeated freeze-thaw cycles.*

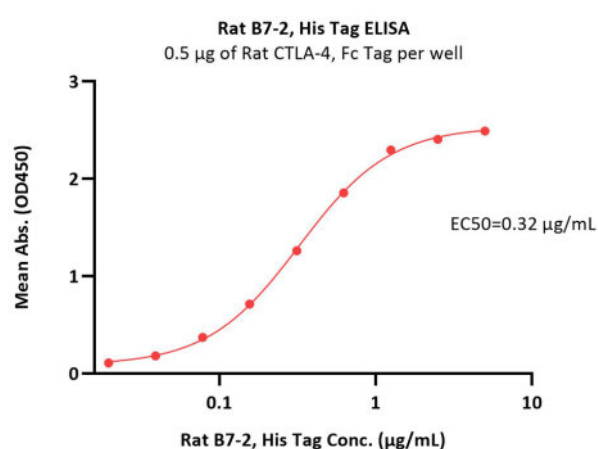
This product is stable after storage at:

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

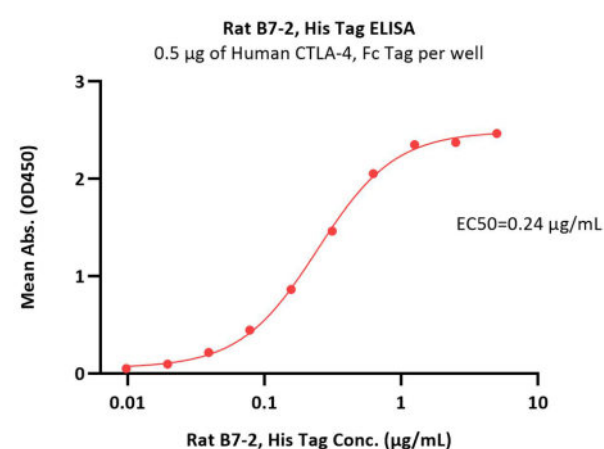
**SDS-PAGE**

Rat B7-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

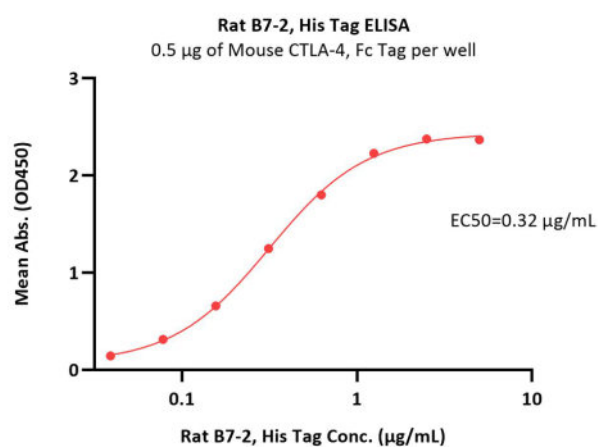
**Bioactivity-ELISA**



Immobilized Rat CTLA-4, Fc Tag (Cat. No. CT4-R5259) at 5 µg/mL (100 µL/well) can bind Rat B7-2, His Tag (Cat. No. CD6-R52H9) with a linear range of 0.02-1.25 µg/mL (QC tested).



Immobilized Human CTLA-4, Fc Tag (Cat. No. CT4-H5255) at 5 µg/mL (100 µL/well) can bind Rat B7-2, His Tag (Cat. No. CD6-R52H9) with a linear range of 0.01-0.625 µg/mL (Routinely tested).



Immobilized Mouse CTLA-4, Fc Tag (Cat. No. CT4-M5256) at 5 µg/mL (100 µL/well) can bind Rat B7-2, His Tag (Cat. No. CD6-R52H9) with a linear range of 0.039-1.25 µg/mL (Routinely tested).

## Background

Cluster of Differentiation 86 (CD86) is also known as B-lymphocyte activation antigen B7-2, is a type I membrane protein that is a member of the immunoglobulin superfamily, and is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B72 is expressed at low levels on monocytes and can be upregulated through interferon  $\gamma$ . CD86 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). CD86 works in tandem with CD80 to prime T cells. Recent study has revealed that B7-2 promotes the generation of a mature APC repertoire and promotes APC function and survival. Furthermore, the B7 proteins are also involved in innate immune responses by activating NF- $\kappa$ B-signaling pathway in macrophages. CD86 thus is regarded as a promising candidate for immune therapy. CD86<sup>+</sup> macrophages in Hodgkin lymphoma patients are an independent marker for potential nonresponse to firstline-therapy.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.