# Mouse B7-2 / CD86 Protein, Fc Tag (MALS verified)

Catalog # CD6-M5251

## Synonym

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

## Source

Mouse B7-2, Fc Tag(CD6-M5251) is expressed from human 293 cells (HEK293). It contains AA Val 24 - Glu 245 (Accession # NP_062261.3). Predicted N-terminus: Val 24

## Molecular Characterization

| B7-2(Val 24 - Glu 245) NP_062261.3 | Fc(Pro 100 - Lys 330) P01857 |
|---|---|

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 51.9 kDa. The protein migrates as 66-80 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

## Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22 μm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5 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

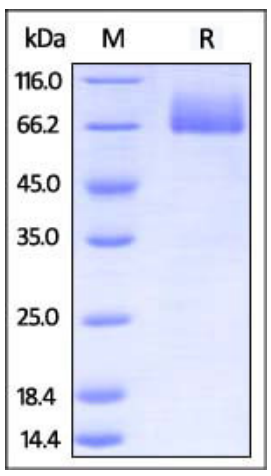
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

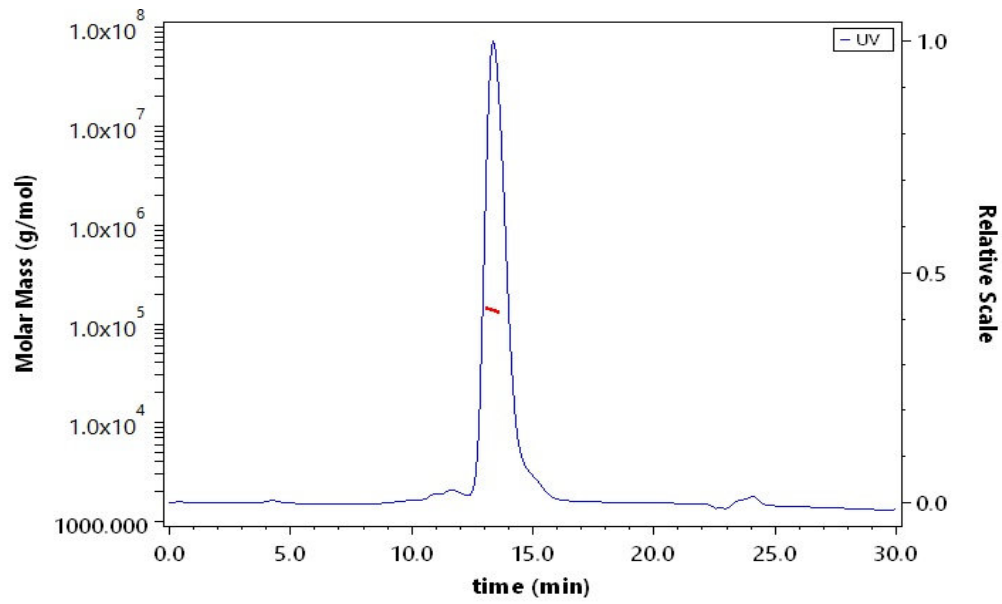
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



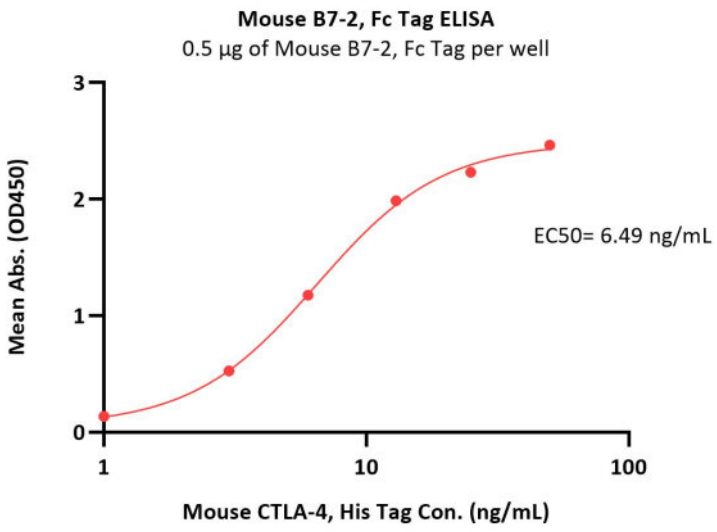

Mouse B7-2, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

## SEC-MALS

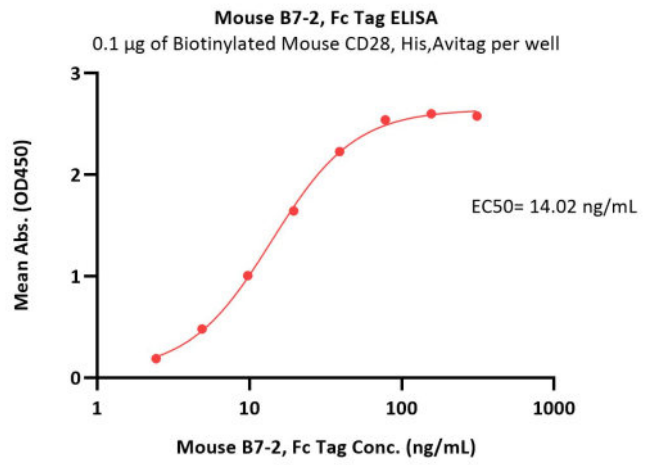



The purity of Mouse B7-2, Fc Tag (Cat. No. CD6-M5251) is more than 95% and the molecular weight of this protein is around 135-160 kDa verified by SEC-MALS.
Report

## Bioactivity-ELISA




Immobilized Mouse B7-2, Fc Tag (Cat. No. CD6-M5251) at 5 μg/mL (100 μL/well) can bind Mouse CTLA-4, His Tag (Cat. No. CT4-M52H5) with a linear range of 0.4-13 ng/mL (QC tested).




Immobilized Biotinylated Mouse CD28, His,Avitag (Cat. No. CD8-M82E3) at 1 μg/mL (100 μL/well) on Streptavidin (Cat. No. STN-N5116) precoated (0.5 μg/well) plate, can bind Mouse B7-2, Fc Tag (Cat. No. CD6-M5251) with a linear range of 2-39 ng/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 γ. 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-κB-signaling pathway in macrophages. CD86 thus is regarded as a promising candidate for immune therapy. CD86+ macrophages in Hodgkin lymphoma patients are an independent marker for potential nonresponse to firstline-therapy.