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.

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

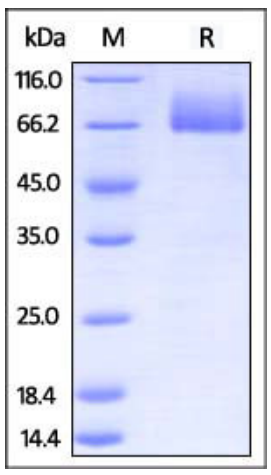
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

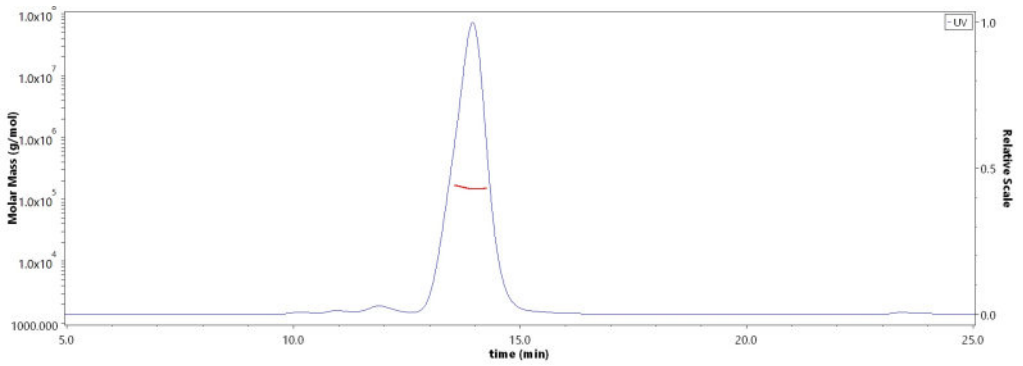
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



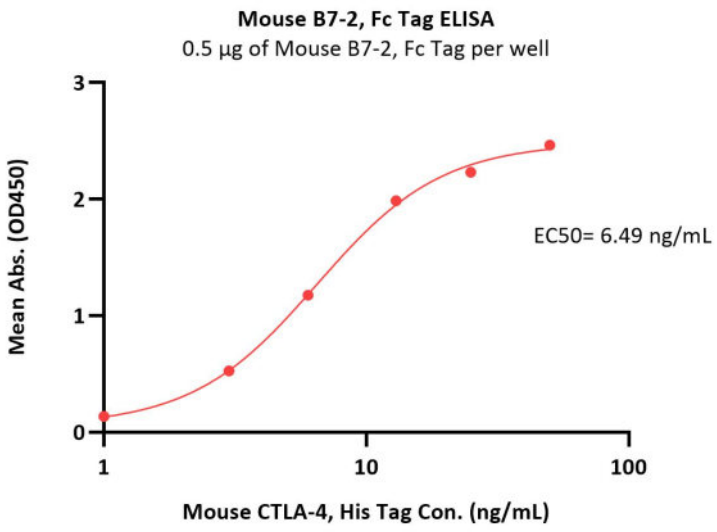
Mouse B7-2, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

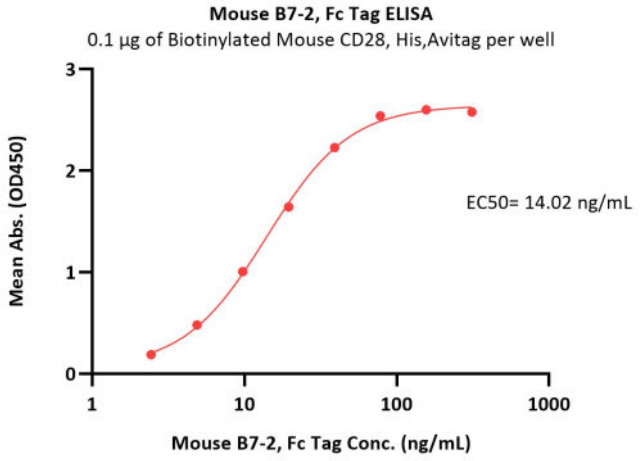


The purity of Mouse B7-2, Fc Tag (Cat. No. CD6-M5251) is more than 95% and the molecular weight of this protein is around 135-160 kDa verified by SEC-MALS.
Report

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.

Clinical and Translational Updates