

Synonym

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

Source

Cynomolgus / Rhesus macaque B7-2, Fc Tag (CD6-C5254) is expressed from human 293 cells (HEK293). It contains AA Ala 19 - His 240 (Accession # [G7NXR4](#)). In the region Ala 19 - His 240, the AA sequence of Cynomolgus and Rhesus macaque B7-2 are homologous.
Predicted N-terminus: Ala 19

Molecular Characterization

B7-2(Ala 19 - His 240) G7NXR4	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 52 kDa. The protein migrates as 76-100 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.

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.

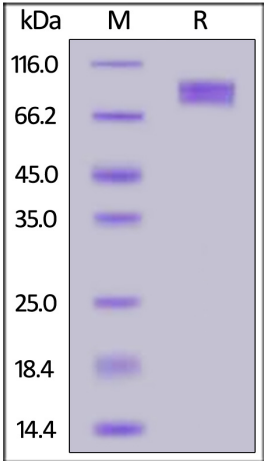
Storage

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.

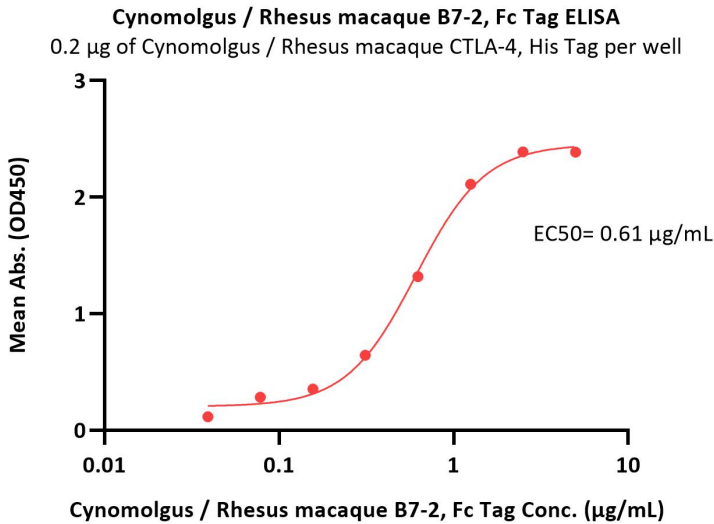
SDS-PAGE



Cynomolgus / Rhesus macaque 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%.

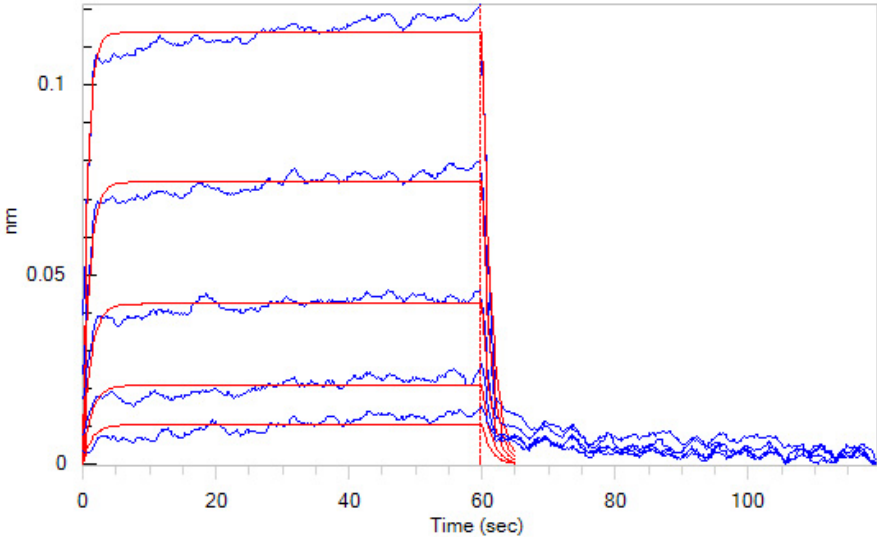
Bioactivity-ELISA





Immobilized Cynomolgus / Rhesus macaque CTLA-4, His Tag (Cat. No. CT4-C5227) at 2 µg/mL (100 µL/well) can bind Cynomolgus / Rhesus macaque B7-2, Fc Tag (Cat. No. CD6-C5254) with a linear range of 0.039-1.25 µg/mL (QC tested).

Bioactivity-BLI



Loaded Cynomolgus / Rhesus macaque B7-2, Fc Tag (Cat. No. CD6-C5254) on Protein A Biosensor, can bind Human / Cynomolgus / Rhesus macaque CD28, His Tag with an affinity constant of 11 µM as determined in BLI assay (ForteBio Octet Red96e) (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.

