Catalog # CD6-C5254



### 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 # <u>G7NXR4</u>). In the region Ala 19 - His 240, the AA sequence of Cynomolgus and Rhesus macaque B7-2 are homologus.

Predicted N-terminus: Ala 19

## **Molecular Characterization**

 B7-2(Ala 19 - His 240)
 Fc(Pro 100 - Lys 330)

 G7NXR4
 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  $\mu g$  by the LAL 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

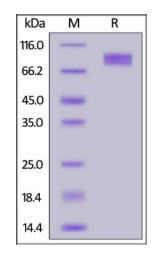
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ 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**

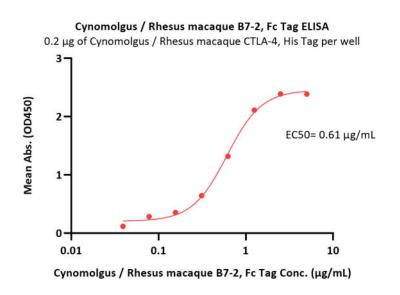


>>> www.acrobiosystems.com



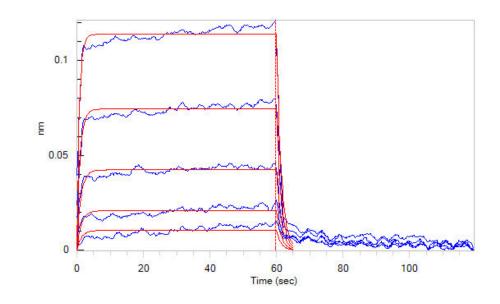


Catalog # CD6-C5254



Immobilized Cynomolgus / Rhesus macaque CTLA-4, His Tag (Cat. No. CT4-C5227) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Cynomolgus / Rhesus macaque B7-2, Fc Tag (Cat. No. CD6-C5254) with a linear range of 0.039-1.25  $\mu$ g/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  $\gamma$ . 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-kB-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**



Catalog # CD6-C5254





>> www.acrobiosystems.com

