

# Rat CD86 / B7-2 Protein (His Tag)

Catalog Number: 80025-R08H



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CD86

### Protein Construction:

A DNA sequence encoding the rat CD86 (NP\_064466.1) extracellular domain (Met 1-Ile 250) was expressed, fused with a polyhistidine tag at the C-terminus.

**Source:** Rat

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

**Measured by its binding ability in a functional ELISA**

. Immobilized rat CD86 at 2 µg/ml (100 µl/well) can bind mouse CD28 with a linear range of 6.4-160 ng/ml

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

**Predicted N terminal:** Pro 30

### Molecular Mass:

The recombinant rat CD86 comprises 232 amino acids and predicts a molecular mass of 26.8 kDa. The apparent molecular mass of the rat CD86 is approximately 40-70 kDa in SDS-PAGE under reducing conditions due to glycosylation.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

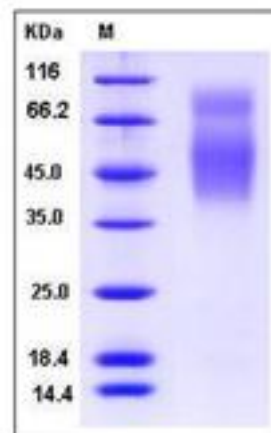
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

CD86, also known as B-lymphocyte activation antigen B7-2 (referred to as B7), is a member of the cell surface immunoglobulin superfamily. B7-2 exists predominantly as a monomer on cell surfaces and interacts with two co-stimulatory receptors CD28 and cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) expressed on T cells, and thus induces the signal pathways which regulate T cell activation and tolerance, cytokine production, and the generation of CTL. It is indicated that contacts between B and T helper cells mediated by CD86 encourage signals for the proliferation and IgG secretion of normal B cells and B cell lymphomas. Recent study has revealed that CD86 also promotes the generation of a mature APC repertoire and promotes APC function and survival. CD86 has an important role in chronic hemodialysis, allergic pulmonary inflammation, arthritis, and antiviral responses, and thus is regarded as a promising candidate for immune therapy.

## References

- 1.Chen YQ, et al. (2006) CD28/CTLA-4--CD80/CD86 and ICOS--B7RP-1 costimulatory pathway in bronchial asthma. Allergy. 61(1): 15-26.
- 2.Rau FC, et al. (2009) B7-1/2 (CD80/CD86) direct signaling to B cells enhances IgG secretion. J Immunol. 183(12): 7661-71.
- 3.Dai ZS, et al. (2009) Defective expression and modulation of B7-2/CD86 on B cells in B cell chronic lymphocytic leukemia. Int J Hematol. 89(5): 656-63.