## For Research Use Only

## Recombinant Human CD86 protein (His Tag)



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Catalog Number: Eg0966

**Basic Information** 

Species: Human

Purity: >95 %, SDS-PAGE

Tag: His Tag

EC50:

72-290 ng/mL

**Technical Specifications** 

Purity: >95 %, SDS-PAGE

**Endotoxin Level:** 

<0.1 EU/ µg protein, LAL method

HEK293-derived Human CD86 protein Leu26-Pro247 (Accession# P42081-1) with a His tag at the C-terminus.

942

Accession: P42081-1

**Predicted Molecular Mass:** 

26.2 kDa

**SDS-PAGE:** 

37-60 kDa, reducing (R) conditions

**Formulation** 

Lyophilized from 0.22  $\,\mu$  m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

**Biological Activity** 

Immobilized Human CD86 (His tag) at 2  $\,\mu$  g/mL (100  $\,\mu$  L/well) can bind Human CD28 (hFc tag) with a linear range of 72-290 ng/mL.

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Until expiry date, -20°C to -80°C as lyophilized proteins.
3 months, -20°C to -80°C under sterile conditions after reconstitution.

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

CD86 (also known as B7-2) is a costimulatory molecule belonging to the immunoglobulin (Ig) superfamily. CD86 is primarily expressed in antigen-presenting cells (APCs), including B cells, dendritic cells, and macrophages. CD86 has strong structural similarity with another B7 family molecule, CD80 (B7-1). CD86 and CD80 are the ligands for two proteins at the cell surface of T cells, CD28 antigen and cytotoxic T-lymphocyte antigen 4 (CTLA-4). The binding of CD86 or CD80 with CD28 antigen is a costimulatory signal for T cell activation, proliferation, and cytokine production. The binding of CD86 or CD80 with CTLA-4 negatively regulates T-cell activation and diminishes the immune response. However, CD86 and CD80 bind to CTLA-4 with higher affinity than CD28. Defects in CTLA-4-mediated transendocytosis of CD86 are associated with autoimmunity.

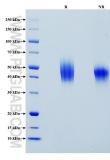
References

1.Bolandi N, et al. (2021). Int J Mol Sci. 22(19):10719 2.Yokozeki H, et al. (1996). J Invest Dermatol.106(1):147-153 3.Baravalle G, et al. (2011). J Immunol. 187(6):2966-2973. 4.Collins M, et al. (2005). Genome Biol. 6(6):223 5.Greaves P, et al. (2013). Blood. 121(5):734-744 6.Kennedy A, et al. (2022). Nat Immunol.23(9):1365-1378

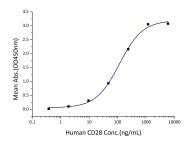
**Synonyms** 

CD86, Activation B7 2 antigen, Activation B7-2 antigen, B7 2, B70

## **Selected Validation Data**



Purity of Recombinant Human CD86 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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