



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD86 Protein
Catalog Number: hRP-0367
Manufacturer: LD Biopharma, Inc.

Introduction

Human CD86 gene encodes a type I membrane protein that is a member of the immunoglobulin superfamily. This protein is expressed by antigen-presenting cells, and it is the ligand for two proteins at the cell surface of T cells, CD28 antigen and cytotoxic T-lymphocyte-associated protein 4. Binding of this protein with CD28 antigen is a costimulatory signal for activation of the T-cell. Binding of this protein with cytotoxic T-lymphocyte-associated protein 4 negatively regulates T-cell activation and diminishes the immune response. Alternative splicing results in several transcript variants encoding different isoforms. Recombinant CD86 may service as coating matrix protein for studying of T cell functions in vitro.

Full-length human CD86 extracellular domain cDNA (24 - 247 aa, Isoform-2) was constructed with 31 N-terminal T7/His tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified as soluble protein. Coating this recombinant protein at 1-10 ug / well (6 well plate) in T cell specific medium can be used for human leucocytes/receptor interaction study in vitro.

Gene Symbol: CD86
Accession Number: NP_008820
Species: Human
Size: 100 µg / Vial
Composition: 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References



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Morgado,P., et al., *Toxoplasma gondii induces B7-2 expression through activation of JNK signal transduction.* Infect. Immun. 79 (11), 4401-4412 (2011)

Nukada,Y., et al. *The relationship between CD86 and CD54 protein expression and cytotoxicity following stimulation with contact allergen in THP-1 cells.* J Toxicol Sci 36 (3), 313-324 (2011)

Qureshi,O.S., et al., *Trans-endocytosis of CD80 and CD86: a molecular basis for the cell-extrinsic function of CTLA-4.* Science 332 (6029), 600-603 (2011)

Applications

1. Protein can be used as coating matrix protein for human T cell/Receptor interaction study in vitro.
2. As highly purified recombinant antigen, it may be used as culture matrix protein for T cells differentiation regulation study in vitro.

Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFELPLKIQAYFNETADLPCQFANSQNQSLSELVVF
WDQENLVLNEVYLGKEKFDSVHVKYMGRTSFDSWTLRLHNLQIKDKGLYQCI IHHKKPTGMI
RIHQMNSELSVLANFSQPEIVPISNITENVYINLTCSSIHGYPEPKKMSVLLRRTKNSTIEYDGI
MQKSQDNVTELYDVSI SLSVSVFPDVTSNMTIFCILETDKTRLLSSPFSIELEDPPPPDHIP