



LD Biopharma, Inc.
9924 Mesa Rim Road Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD83 Protein
Catalog Number: hRP-1607
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human CD83 gene is a single-pass type I membrane protein and member of the immunoglobulin superfamily of receptors. The encoded protein may be involved in the regulation of antigen presentation in dendritic cells. The membrane-bound CD83 is a well-known surface marker for mature DC and a soluble form of CD83 protein can bind to dendritic cells and inhibit their maturation.

Recombinant extracellular domain of human CD83 extracellular domain cDNA (20 - 144 aa, derived from BC030830) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (35aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CD83 (BL11; HB15)
Accession Number: NP_004224
Species: Human
Size: 50 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, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Felix Bock, et al., *Topical Application of Soluble CD83 Induces IDO-Mediated Immune Modulation, Increases Foxp3+ T cells, and Prolongs Allogeneic Corneal Graft Survival*. Journal of Immunology. 191: 1965-1975 (2013)



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Stein MF, et al., *Multiple interferon regulatory factor and NF-kappaB sites cooperate in mediating cell-type- and maturation-specific activation of the human CD83 promoter in dendritic cells.* Mol. Cell. Biol. 33 (7), 1331-1344 (2013)

Chen L, et al., *CD83-stimulated monocytes suppress T-cell immune responses through production of prostaglandin E2.* PNAS. 15; 108 (46): 18778 - 83 (2011)

Applications

1. May be used for in vitro CD83 mediated T cell activation or DC inhibition regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used for protein-protein interaction assay.
3. Potential biomarker protein for clinical monitoring NK cell function in vitro.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGEFGSTSTPEVKVACSEDVDLPCTAPWDPQVPYTVSWVK
LLEGGEERMETPQEDHLRGQHYHQKGQNGSFDAPNERPYSKIRNTTSCNSGTYRCTLQDPDGQ
RNLSGKVILRVTGCPAQRKEETFKKYRAE