

LD Biopharma, Inc. 9924 Mesa Rim Road Suite B San Diego, CA 92121 Tel: 858-876-8266 http://www.ldbiopharma.com

#### - PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD273 Protein

Catalog Number: hRP-1456

**Manufacturer:** LD Biopharma, Inc.

#### Introduction

Human programmed cell death 1 ligand 2 (PD-L2, CD273) is a cell membrane protein, which involved in the costimulatory signal, essential for T-cell proliferation and IFNG production in a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation by blocking cell cycle progression and cytokine production.

Recombinant human CD273 extracellular domain cDNA (20-220 aa, derived from BC074766) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) 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: CD273 (PD-L2; PDCD1LG2; B7DC; bA574F11.2; Btdc)

**Accession Number:** NP 079515.2

**Species:** Human

Size:  $50 \mu g / Vial$ 

**Composition:** 1.0 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 -80°C for long term storage. Product is stable

at 4 °C for at least 30 days.

### **Key References**

Messal,N., et al., *PD-L2 is expressed on activated human T cells and regulates their function*. Mol. Immunol. 48 (15-16), 2214-2219 (2011)

Du,G.H., et al., *The high expression level of programmed death-1 ligand 2 in oral lichen planus and the possible costimulatory effect on human T cells*. J. Oral Pathol. Med. 40 (7), 525-532 (2011)



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Singh,A.K., et al,. *Role of PD-L1 and PD-L2 in allergic diseases and asthma*. Allergy 66 (2), 155-162 (2011)

# **Applications**

- 1. May be used for in vitro CD273 mediated T cell differentiation 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 T cell function in vitro.
- 4. As antigen for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

# **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHHGNLYFQGEFLFTVTVPKELYIIEHGSNVTLECNFDTGSHVNLGAI TASLQKVENDTSPHRERATLLEEQLPLGKASFHIPQVQVRDEGQYQCIIIYGVAWDYKYLTLKV KASYRKINTHILKVPETDEVELTCQATGYPLAEVSWPNVSVPANTSHSRTPEGLYQVTSVLRLK PPPGRNFSCVFWNTHVRELTLASIDLQSQMEPRTHPT