CD86 / B7-2 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	CD86 / B7-2, Recombinant Protein
Full Product Name	Recombinant Human CD86 / B7-2 Protein (His tag)
Product Gene Name	CD86 / B7-2 recombinant protein
Product Synonym Names	B7-2, B70, CD28LG2, LAB72, MGC34413
Host	Human Cells
Form/Format	Lyophilized from sterile PBS, pH 7.4
Purity/Purification	> 97 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70 degree C
Molecular Weight	28,420 Da
OMIM	U04343 mRNA
Predicted N Terminal	Leu 20
Endotoxin	< 1.0 EU per mug of the protein as determined by the LAL method
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Application Notes for CD86 / B7-2 recombinant protein	The recombinant human B7-2 consists of 228 amino acids and has a predicted molecular mass of 26.2 kDa. In SDS-PAGE, the apparent molecular mass of rhB7-2 is approximately 55-60 kDa due to glycosylation.
Related Product Information for CD86 / B7-2 recombinant protein	Background: CD86, also known as B-lymphocyte activation antigen B7-2 (referred to as B70), 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. Description: A DNA sequence encoding the extracellular domain (Met 1-His 239) of human B7-2 (NP_008820.2) was fused with a polyhistidine tag at the C-terminus.
Other Notes	Small volumes of CD86 / B7-2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD86 / B7-2 purchase	MBS2546129 is a recombinant protein targeting CD86 / B7-2. Also known as Recombinant Human CD86 / B7-2 Protein (His tag). Host: Human Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD86 / B7-2. It may not necessarily be applicable to this product.

NCBI GI #	91208433
NCBI GeneID	942
NCBI Accession #	NP_008820.2

UniProt Secondary Accession #	Q13655; Q6FHB1; Q6GTS4; Q7M4L5; A0N0P0; B7Z2F3; B7Z702; E7ETN5; E9PC27
UniProt Related Accession #	P42081
GenBank Nucleotide #	NM_006889.3
NCBI Official Full Name	T-lymphocyte activation antigen CD86 isoform 2
NCBI Official Synonym Full Names	CD86 molecule
NCBI Official Symbol	CD86
NCBI Official Synonym Symbols	B70; B7-2; B7.2; LAB72; CD28LG2
UniProt Protein Name	T-lymphocyte activation antigen CD86
UniProt Synonym Protein Names	Activation B7-2 antigen; B70; BU63; CTLA-4 counter-receptor B7.2; FUN-1; CD_antigen: CD86
UniProt Gene Name	CD86
UniProt Synonym Gene Names	CD28LG2
NCBI Protein Information	T-lymphocyte activation antigen CD86
NCBI Summary for CD86 / B7-2	This 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.[provided by RefSeq, May 2011]
UniProt Comments for CD86 / B7-2	CD86: Receptor involved in the costimulatory signal essential for T-lymphocyte proliferation and interleukin-2 production, by binding CD28 or CTLA-4. May play a critical role in the early events of T-cell activation and costimulation of naive T-cells, such as deciding between immunity and anergy that is made by T- cells within 24 hours after activation. Isoform 2 interferes with the formation of CD86 clusters, and thus acts as a negative regulator of T-cell activation. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Immunoglobulin superfamily; Membrane protein, integral Chromosomal Location of Human Ortholog: 3q13.33 Cellular Component: cell surface; integral to membrane; plasma membrane Molecular Function: phosphatidylinositol-4,5-bisphosphate 3-kinase activity; protein binding; receptor activity Biological Process: cell-cell signaling; immune response; phosphoinositide-mediated signaling; positive regulation of cell proliferation; regulation of phosphoinositide 3-kinase cascade; T cell activation; T cell costimulation
Research Articles on CD86 / B7-2	**1.** B-cells from patients tolerant to the graft maintained higher IL-10 production after CD40 ligation, which correlates with lower CD86 expression compared to patients with chronic rejection.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/recombinant-protein/cd86-b7-2/2546129