

## Recombinant Mouse CD86 Antigen

**Cat. No.** Cd86-1706M    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

**Species**                      Mouse

**Source**                        Sf21 Cells

#### Description

B7-1 and B7-2, together with their receptors CD28 and CTLA-4, constitute one of the dominant costimulatory pathways that regulate T- and B-cell responses. Although both CTLA-4 and CD28 can bind to the same ligands, CTLA-4 binds to B7-1 and B7-2 with a 20 - 100 fold higher affinity than CD28 and is involved in the down-regulation of the immune response. B7-1 is expressed on activated B cells, activated T cells, and macrophages. B7-2 is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B7-2 is expressed at low levels on monocytes and can be up-regulated through interferon  $\gamma$ . B7-1 and B7-2 are both members of the immunoglobulin superfamily. Human B7-2 and B7-1 share 26% amino acid identity. Human and mouse B7-2 share 50% amino acid identity. However, it has been observed that both human and mouse B7-1 and B7-2 can bind to either human or mouse CD28 and CTLA-4, suggesting that there are conserved amino acids which form the B7-1/B7-2/CD28/CTLA-4 critical binding sites.

#### Molecular Weight

The predicted molecular weight of Recombinant Mouse B7-2 is Mr 51.8 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 60-65 kDa.

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|                              |                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>State Of Matter</b>       | Lyophilized.                                                                                                                                                                                                                                                                                                                                    |
| <b>Purity</b>                | >95% by SDS Page and analyzed by silver stain.                                                                                                                                                                                                                                                                                                  |
| <b>Endotoxin</b>             | <0.1 ng per 1 g as determined by the LAL method.                                                                                                                                                                                                                                                                                                |
| <b>Storage And Stability</b> | This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions. |

## GENE INFORMATION

|                            |                                                                                                                                                                                                                         |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | Cd86 CD86 antigen [ <i>Mus musculus</i> ]                                                                                                                                                                               |
| <b>Synonyms</b>            | Cd86; CD86 antigen; B7; B70; MB7; B7-2; B7.2; CLS1; Ly58; ETC-1; Ly-58; MB7-2; Cd28l2; TS/A-2; OTTMUSP00000015940; activation B7-2 antigen; T-lymphocyte activation antigen CD86; early T cell costimulatory molecule-1 |
| <b>Gene ID</b>             | 12524                                                                                                                                                                                                                   |
| <b>mRNA Refseq</b>         | NM_019388                                                                                                                                                                                                               |
| <b>Protein Refseq</b>      | NP_062261                                                                                                                                                                                                               |
| <b>UniProt ID</b>          | P42082                                                                                                                                                                                                                  |
| <b>Chromosome Location</b> | 16 26.9 cM                                                                                                                                                                                                              |

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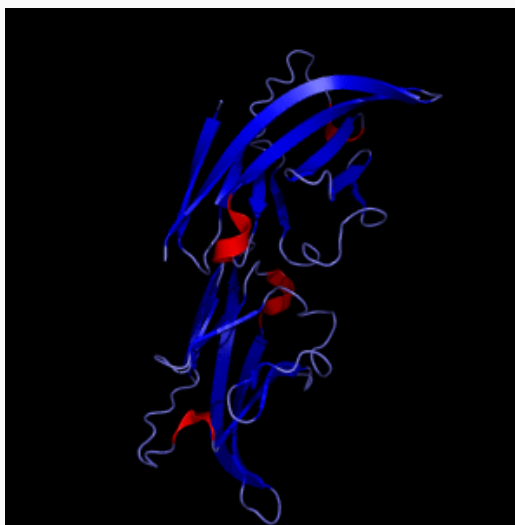
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**Pathway** Allograft rejection; Autoimmune thyroid disease; Cell adhesion molecules (CAMs); Graft-versus-host disease; Systemic lupus erythematosus; Toll-like receptor signaling pathway; Type I diabetes mellitus

**Function** receptor activity

**PDB rendering based on 1i85.**



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