

Recombinant Mouse CD80 Antigen

Cat. No. Cd80-1705M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Mouse

Source Mammalian Cells

Description

It is widely accepted that T cells require a signal induced by the engagement of the T cell receptor and a "costimulatory" signal(s) through distinct T cell surface molecules for optimal T cell expansion and activation. Members of the B7 superfamily of counterreceptors were identified by their ability to interact with costimulatory molecules found on the surface of T cells. Members of the B7 superfamily include B7-1 (CD80), B7-2 (CD86), B7-H1 (PD-L1), B7-H2 (B7RP-1), B7-H3 and PD-L2. B7-1 is expressed on activated B cells, activated T cells, mature dendritic cells and macrophages. T cells express two different receptors capable of binding B7-1, CD28 and CTLA-4. CTLA-4 binds to B7-1 with a 20 - 100 fold higher affinity than CD28. Engagement of CD28 by B7-1 increases T cell proliferation and IL-2 production and enhances the immune response. In contrast, engagement of CTLA-4 is involved in the down-regulation of the immune response. Rat and human B7-1 share 47% amino acid identity.

Molecular Weight

The predicted molecular weight of Recombinant Mouse B7-1 is Mr 51.3 kDa. However, the actual molecular weight as observed by migration on SDS Page is Mr 80-90 kDa.

State Of Matter Lyophilized.

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Purity	>90% by SDS Page and analyzed by silver stain.
Endotoxin	<0.1 ng per 1 g as determined by the LAL method.
Storage And Stability	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

Gene Name	Cd80 CD80 antigen [<i>Mus musculus</i>]
Synonyms	Cd80; CD80 antigen; B7-1; B7.1; Ly53; Cd28l; Ly-53; MIC17; TS/A-1
Gene ID	12519
mRNA Refseq	NM_009855
Protein Refseq	NP_033985
UniProt ID	Q00609
Chromosome Location	16 B5; 16 28.0 cM
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

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Function	protein binding; receptor activity
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