

Recombinant Mouse CD28 Antigen, Fc-His

Cat. No. Cd28-1712M **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant Mouse CD28 (amino acids 1-149) was fused to the Fc region of human IgG1 (containing a 6x His-tag at the C-terminus) and expressed in NSO cells.

Species Mouse

Source Mammalian Cells

ProteinLength 1-149 a.a.

Description

CD28 (Cluster of Differentiation 28) is one of the molecules expressed on T cells that provide co-stimulatory signals, which are required for T cell activation. CD28 is composed of a single Ig V-like extracellular domain, a transmembrane domain and an intracellular domain. It is expressed on the cell surface as disulfide-linked homodimer or as monomer. CD28 is the receptor for B7.1 (CD80) and B7.2 (CD86). When activated by Toll-like receptor ligands, the B7.1 expression is upregulated in antigen presenting cells (APCs). The B7.2 expression on antigen presenting cells is constitutive. CD28 is the only B7 receptor constitutively expressed on naive T cells. Stimulation through CD28 in addition to the TCR can provide a potent co-stimulatory signal to T cells for the production of various interleukins (IL-2 and IL-6 in particular). CD28 possesses an intracellular domain with several residues that are critical for its effective signalling. CD28 also contains two proline-rich motifs that are able to bind SH3-containing proteins. CD28 has also been found to stimulate eosinophil granulocytes where its ligation with anti-CD28 leads to the release of IL-2, IL4, IL-13 and IFN-γ.

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Molecular Weight	The predicted molecular weight of Recombinant Mouse CD28 is Mr 52 kDa. However, the actual molecular weight as observed by migration on SDS Page under reducing conditions is Mr 60 kDa.
State Of Matter	Lyophilized.
Formulation	The protein was 0.2 µm filtered and lyophilized from PBS.
Purity	>97% by SDS Page and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method.
Biological Activity	The biological activity of Mouse CD28 was determined by its ability to inhibit IL2 secretion by stimulated Jurkat human leukemic T cells. The expected ED50 is 0.3-1.2 µg/ml when stimulated with 1 µg/ml rhB71/Fc Chimera in the presence of PHA.
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	Cd28 CD28 antigen [Mus musculus]
Synonyms	Cd28; CD28 antigen; OTTMUSP00000002157; CH29-189K17.3
Gene ID	12487
mRNA Refseq	NM_007642

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Protein Refseq	NP_031668
UniProt ID	P31041
Chromosome Location	1 30.1 cM
Pathway	Allograft rejection; Autoimmune thyroid disease; Cell adhesion molecules (CAMs); Graft-versus-host disease; Systemic lupus erythematosus; T cell receptor signaling pathway; Type I diabetes mellitus

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