



## CD152 [CTLA-4] Recombinant Protein

CATALOG NUMBER: 90-417

### Specifications

<b>SPECIES:</b>	Mouse
<b>SOURCE SPECIES:</b>	NS1 cells
<b>SEQUENCE:</b>	The extracellular domain of mouse CD152 [CTLA-4] (aa 38-160) is fused to the N-terminus of the Fc region of mouse IgG2a.
<b>FUSION TAG:</b>	Fc Tag
<b>APPLICATIONS:</b>	This recombinant proteins is for research use only.
<b>BIOLOGICAL ACTIVITY:</b>	Binds both CD80 (B7-1) and CD86 (B7-2) with high affinity and inhibits CD28 signaling competitively. Kills the target cell completely.

### Properties

<b>PURITY:</b>	>98% (SDS-PAGE)
<b>PHYSICAL STATE:</b>	Lyophilized
<b>BUFFER:</b>	Lyophilized from 0.2um-filtered solution in PBS.
<b>STORAGE CONDITIONS:</b>	Stable for at least 1 year after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.

### Additional Info

<b>ALTERNATE NAMES:</b>	CTLA-4
<b>ACCESSION NO.:</b>	NP_033973
<b>PROTEIN GI NO.:</b>	31981847

### Background

CD152 and CD28, together with their ligands B7-1 and B7-2, constitute one of the dominant costimulatory pathways that regulate T and B cell responses. CD152 and CD28 are structurally homologous molecules that are members of the immunoglobulin (Ig) gene superfamily. Both CD152 and CD28 are composed of a single Ig V-like extracellular domain, a transmembrane domain and an intracellular domain. CD152 and CD28 are both expressed on the cell surface as disulfide-linked homodimers or as monomers. CD152 was originally identified as a gene that was specifically expressed by cytotoxic T lymphocytes. However, CD152 transcripts have since been found in both Th1 and Th2, and CD4+ and CD8+ T cell clones. Whereas, CD28 expression is constitutive on the surfaces of 95% of CD4+ T cells and 50% of CD8+ T cells and is down regulated upon T cell activation, CD152 expression is upregulated rapidly following T cell activation and peaks approximately 24 hours following activation. Although both CD152 and CD28 can bind to the same ligands, CD152 binds to B71 and B72 with 20-100-fold higher affinity than CD28.

**FOR RESEARCH USE ONLY**

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