

Ctla4

Recombinant Mouse CTLA-4/CD152:Fc Chimera Non-Lytic

Catalog No.	CRM036	Quantity:	100 µg
Alternate Names:	Cd152, Ctla-4, Ly-56		
Description:	<p>CD152 [CTLA-4] 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.</p> <p>The extracellular domain of mouse CD152 [CTLA-4] (aa 1-160) is fused to the N-terminus of the Fc region of a mutant mouse IgG2a.</p> <p>The mutant chimera is non-lytic and acts as a long lasting fusion protein that only binds to the receptor. Mutations to the complement (C1q) and FcγR I binding sites of the IgGs Fc fragment render the fusion proteins incapable of antibody directed cytotoxicity (ADCC) and complement directed cytotoxicity (CDC).</p>		
Gene ID:	12477		
Protein Accession No:	NP_033973.2		
Source:	NS1 cells		
Formulation:	Lyophilized from a 0.2 µm filtered solution containing PBS.		
Purity:	≥98% (SDS-PAGE)		
Endotoxin Level:	<0.06 EU/µg purified protein as determined by LAL test (Lonza).		
Biological Activity:	<p>Blocks the binding of mouse CD80 (B7-1) and CD86 (B7-2) to their receptors (by binding CD80 and CD86 with high affinity) and thereby prevents their T cell regulatory actions by inhibiting the CD28 signaling competitively. Shows the biological functions of the CD152 moiety and exerts a prolonged circulating half-life caused by the modified Fc domain. Useful for investigating the T cell co-stimulation.</p>		
Reconstitution:	Reconstitute at 100 µg/ml with sterile PBS.		
Storage & Stability:	<p>Store at 4°C upon arrival and at -20°C for long term. Lyophilized product is stable for at least 1 year after receipt when stored at -20°C. After reconstitution, prepare aliquots and store at -20°C. Stable for up to 3 month at -20°C. Avoid repeated freeze-thaw cycles.</p>		

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