

Active Recombinant Human CTLA4, Fc-tagged

Cat. No. CTLA4-160H Lot. No. (See product label)

SPECIFICATION

Product Overview The extracellular domain of human CD152 [CTLA-4] (aa 37-160) is fused to the N-terminus of the Fc region of human IgG1.

Species Human

Source CHO

ProteinLength 37-160 a.a.

Description

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.

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Form	Lyophilized from 0.2µm-filtered solution in PBS.
Bio-activity	Binds both CD80 (B7-1) and CD86 (B7-2) with high affinity and inhibits CD28 signaling competitively. Kills the target cell completely.
Purity	≥98% (SDS-PAGE)
Stability	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.
Storage	Short Term Storage: +4°C; Long Term Storage: -20°C. Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	CTLA4 cytotoxic T-lymphocyte-associated protein 4 [Homo sapiens]
Official Symbol	CTLA4
Synonyms	CTLA4; cytotoxic T-lymphocyte-associated protein 4; celiac disease 3 , CELIAC3; cytotoxic T-lymphocyte protein 4; CD; CD28; CD152; GSE; ICOS; CD152 isoform; celiac disease 3; cytotoxic T-lymphocyte antigen 4; cytotoxic T-lymphocyte-associated antigen 4; cytotoxic T-lymphocyte-associated serine esterase-4; cytotoxic T lymphocyte associated antigen 4 short spliced form; ligand and transmembrane spliced cytotoxic T lymphocyte associated antigen 4; GRD4; CTLA-4; IDDM12; CELIAC3;
Gene ID	1493
mRNA Refseq	NM_001037631
Protein Refseq	NP_001032720

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UniProt ID	P16410
Chromosome Location	2q33
Pathway	Adaptive Immune System, organism-specific biosystem; Autoimmune thyroid disease, organism-specific biosystem; Autoimmune thyroid disease, conserved biosystem; CTLA4 inhibitory signaling, organism-specific biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem;
Function	protein binding;

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