

Recombinant Human CTLA4, C13&N15-labeled

Cat. No. CTLA4-228H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CTLA4 /CD152 MS Standard Protein, C13 and N15-labeled (CTLA4 / CD152, Heavy Labeled) Ala 37 - Phe 162 (Accession # NP_005205.2) was produced in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	37-162 a.a.
Description	CTLA-4 (Cytotoxic T-Lymphocyte Antigen 4), also known as CD152 (Cluster of differentiation 152), is a protein receptor that downregulates the immune system. CTLA4 is a member of the immunoglobulin superfamily, which is expressed on the surface of Helper T cells and transmits an inhibitory signal to T cells. The protein contains an extracellular V domain, a transmembrane domain, and a cytoplasmic tail. Alternate splice variants, encoding different isoforms. CTLA4 is similar to the T-cell co-stimulatory protein, CD28, and both molecules bind to CD80 and CD86, also called B7-1 and B7-2 respectively, on antigen-presenting cells. CTLA4 transmits an inhibitory signal to T cells, whereas CD28 transmits a stimulatory signal.[1-3] Intracellular CTLA4 is also found in regulatory T cells and may be important to their function. T cell activation through the T cell receptor and CD28 leads to increased expression of CTLA-4, an inhibitory receptor for B7 molecules. Fusion proteins of CTLA4 and antibodies (CTLA4-Ig) have been used in clinical trials for rheumatoid arthritis.

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	CTLA4 / CD152, Heavy Labeled, fused with 6×His tag at the C-terminus, has a calculated MW of 14.3 kDa. The predicted N-terminus is Ala 37 . DTT-reduced Protein migrates as 25 kDa due to glycosylation.
Endotoxin	Less than 1.0 EU per µg of the CTLA4 / CD152, Heavy Labeled by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC-8oC); After reconstitution under sterile conditions for 1 month (4oC-8oC) or 3 months (-20oC to -70oC).

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

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mRNA Refseq	NM_001037631
Protein Refseq	NP_001032720
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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