

Recombinant Human CTLA4, Fc-tagged therapeutic protein(Abatacept)

Cat. No. CTLA4-P03H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human CTLA4, Fc-tagged therapeutic protein is a soluble fusion protein, which links the extracellular domain of human cytotoxic T-lymphocyte-associated antigen 4 (CTLA-4) to the modified Fc (hinge, CH2, and CH3 domains) portion of human immunoglobulin G1 (IgG1). Structurally, abatacept is a glycosylated fusion protein with a MALDI-MS molecular weight of 92,300 Da and it is a homodimer of two homologous polypeptide chains of 357 amino acids each. It is produced through recombinant DNA technology in mammalian CHO cells.

Species

Human

Source

CHO

Description

This gene is a member of the immunoglobulin superfamily and encodes a protein which transmits an inhibitory signal to T cells. The protein contains a V domain, a transmembrane domain, and a cytoplasmic tail. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. The membrane-bound isoform functions as a homodimer interconnected by a disulfide bond, while the soluble isoform functions as a monomer. Mutations in this gene have been associated with insulin-dependent diabetes mellitus, Graves disease, Hashimoto thyroiditis, celiac disease, systemic lupus erythematosus, thyroid-associated orbitopathy, and other autoimmune diseases.

Molecular Mass

92.3 kDa (with glycosylation)

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AA Sequence

MHVAQPAVVLASSRGIASFVCEYASPGKATEVRVTVLRQADSQVTEVCAATYMMG
 NELTFLDDSICTGTSSGNQV NLTIQGLRAMDTGLYICKVELMYPPPYLIGINGTQIY
 VIDPEPCPDSQEPKSSDKTHTSPPSPAPELLG GSSVFLFPPKPKDTLMISRTPEVT
 CVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQ DWL
 NGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKG
 FYPSDIAVEWE SNGQPENNYKTTTPVLDSGDSFFLYSKLTVDKSRWQQGNVFCSC
 VMHEALHNHYTQKSLSLSPGK

Endotoxin < 0.1 EU per µg of the protein

Purity >98%

Alias CTLA4; GRD4; CTLA-4; IDDM12; CELIAC3; Abatacept

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

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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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