

Recombinant Human cytotoxic T-lymphocyte associated protein 4 Protein, His tagged

Cat. No. CTLA4-232H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant human CTLA-4 protein (P16410) (Lys 36-Asp 161) with a His tag at the C-terminus was expressed HEK293.

Species

Human

Source

HEK293

ProteinLength

36-161aa

Description

CTLA-4 or CTLA4 (cytotoxic T-lymphocyte-associated protein 4), also known as CD152 (cluster of differentiation 152), is a protein receptor that functions as an immune checkpoint and downregulates immune responses. CTLA-4 is constitutively expressed in regulatory T cells but only upregulated in conventional T cells after activation – a phenomenon which is particularly notable in cancers. It acts as an "off" switch when bound to CD80 or CD86 on the surface of antigen-presenting cells. Variants in this gene have been associated with Type 1 diabetes, Graves' disease, Hashimoto's thyroiditis, celiac disease, systemic lupus erythematosus, thyroid-associated orbitopathy, primary biliary cirrhosis and other autoimmune diseases. Polymorphisms of the CTLA-4 gene are associated with autoimmune diseases such as rheumatoid arthritis, autoimmune thyroid disease and multiple sclerosis, though this association is often weak. In systemic lupus erythematosus (SLE), the splice variant sCTLA-4 is found to be aberrantly produced and found in the serum of patients with active SLE. Germline haploinsufficiency of CTLA-4 leads to CTLA-4

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deficiency or CHAI disease (CTLA4 haploinsufficiency with autoimmune infiltration), a rare genetic disorder of the immune system. Symptomatic patients with CTLA-4 mutations are characterized by an immune dysregulation syndrome including extensive T cell infiltration in a number of organs, including the gut, lungs, bone marrow, central nervous system. Once a diagnosis is made, the treatment is based on an individual's clinical condition and may include standard management for autoimmunity and immunoglobulin deficiencies. The comparatively higher binding affinity of CTLA-4 than CD28 has made it a potential therapy for autoimmune diseases.

Tag	N-His and C-His
Molecular Mass	14.9 kDa
Endotoxin	Less than 1.0 EU/μg by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution	Reconstitute at 250 μg/mL in sterile water.

GENE INFORMATION

Gene Name CTLA4 cytotoxic T-lymphocyte associated protein 4 [Homo sapiens (human)]

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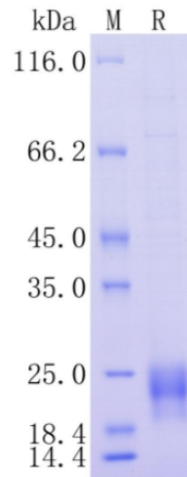
Official Symbol	CTLA4
Synonyms	CTLA4; cytotoxic T-lymphocyte-associated protein 4; celiac disease 3, CELIAC3; cytotoxic T-lymphocyte protein 4; CD; CD28; CD152; GSE; ICOS; CD152 isoform; celiac disease 3; cytotoxic T-lymphocyte antigen 4; cytotoxic T-lymphocyte-associated antigen 4; cytotoxic T-lymphocyte-associated 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
MIM	123890
UniProt ID	P16410

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**Protein on SDS-
PAGE under
reducing (R)
condition.**



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