abcam

Product datasheet

Recombinant human CTLA4 protein (Fc Chimera Active) ab215007

1 Image

Description

Product name	Recombinant human CTLA4 protein (Fc Chimera Active)
Biological activity	Measured by its ability to inhibit IL-2 secretion by stimulated Jurkat Human acute T cell leukemia cells.
Purity	>= 98 % SDS-PAGE.
Endotoxin level	< 0.060 Eu/µg
Expression system	CHO cells
Accession	**P16410**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	AMHV AQPAVVLASS RGIASFVCEY ASPGKATEVR VTVLRQADSQ VTEVCAATYM MGNELTFLDD SICTGTSSGN QVNLTIQGLR AMDTGLYICK VELMYPPPYY LGIGNGTQIY VIDPEPCPDS
Amino acids	37 to 160
Additional sequence information	Extracellular domain fused to the N-terminus of the Fc region of a mutant Human IgG1. NP_005205.2

Specifications

Our **Abpromise guarantee** covers the use of **ab215007** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Lyophilized
Additional notes	Non-lytic: Acts as a long lasting fusion protein which only binds to the receptor. Mutations to the complement (C1q) and FcgR I binding sites of the IgGs Fc fragment render the fusion proteins

incapable of antibody directed cytotoxicity (ADCC) and complement directed cytotoxicity (CDC).

Preparation and Storage

Stability and Storage

Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C long term. Avoid freeze / thaw cycle.

Constituent: 100% PBS

Lyophilized from 0.2 μm-filtered solution.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

Reconstitute at 100 μg/mL in sterile PBS. Working aliquots are stable for up to 3 months when stored at -20°C.

General Info

Function

Inhibitory receptor acting as a major negative regulator of T-cell responses. The affinity of CTLA4 for its natural B7 family ligands, CD80 and CD86, is considerably stronger than the affinity of their cognate stimulatory coreceptor CD28.

Tissue specificity

Widely expressed with highest levels in lymphoid tissues. Detected in activated T-cells where expression levels are 30- to 50-fold less than CD28, the stimulatory coreceptor, on the cell surface following activation.

Involvement in disease

Genetic variation in CTLA4 influences susceptibility to systemic lupus erythematosus (SLE) [MIM:152700]. SLE is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. SLE is thought to represent a failure of the regulatory mechanisms of the autoimmune system.
Note=Genetic variations in CTLA4 may influence susceptibility to Graves disease, an autoimmune disorder associated with overactivity of the thyroid gland and hyperthyroidism.
Genetic variation in CTLA4 is the cause of susceptibility to diabetes mellitus insulin-dependent type 12 (IDDM12) [MIM:601388]. A multifactorial disorder of glucose homeostasis that is characterized by susceptibility to ketoacidosis in the absence of insulin therapy. Clinical fetaures are polydipsia, polyphagia and polyuria which result from hyperglycemia-induced osmotic diuresis and secondary thirst. These derangements result in long-term complications that affect the eyes, kidneys, nerves, and blood vessels.
Genetic variation in CTLA4 is the cause of susceptibility to celiac disease type 3 (CELIAC3) [MIM:609755]. It is a multifactorial disorder of the small intestine that is influenced by both environmental and genetic factors. It is characterized by malabsorption resulting from inflammatory injury to the mucosa of the small intestine after the ingestion of wheat gluten or related rye and barley proteins. In its classic form, celiac disease is characterized in children by malabsorption and failure to thrive.

Sequence similarities

Contains 1 Ig-like V-type (immunoglobulin-like) domain.

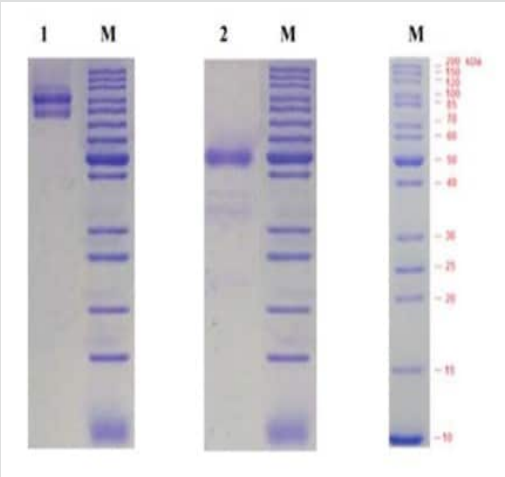
Post-translational modifications

N-glycosylation is important for dimerization.
Phosphorylation at Tyr-201 prevents binding to the AP-2 adapter complex, blocks endocytosis, and leads to retention of CTLA4 on the cell surface.

Cellular localization

Cell membrane. Exists primarily an intracellular antigen whose surface expression is tightly regulated by restricted trafficking to the cell surface and rapid internalisation and.

Images



SDS-PAGE - Recombinant human CTLA4 protein (Fc Chimera Active) (ab215007)

Lane 1: ab215007, 1.5 µg, Non-reducing

Lane 2: ab215007, 1.5 µg, Reducing

Lane M: Protein Marker

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