abcam

Product datasheet

Recombinant human CTLA4 protein (Fc Chimera Active) ab180054

5 Images

Description

Product name	Recombinant human CTLA4 protein (Fc Chimera Active)
Biological activity	Measured by its binding ability in a functional ELISA. Immobilized Human B7-2, His Tag at 10 µg/mL (100 µL/well) can bind ab180054 with a linear range of 2-78 ng/mL. Measured by its binding ability in a functional ELISA. Immobilized ab180054 at 10µg/ml (100 µL/well) can bind human CD80 (**ab180050**) with a linear range of 0.156-1.25µg/ml. Measured by its binding ability in a functional ELISA. Serial dilutions of Ipilimumab were added into ab180054: Recombinant human CD86 protein (Active) (Biotin) (**ab246027**) binding reactions. The half maximal inhibitory concentration (IC50) is 0.1701 µg/mL. Measured by its binding ability in a functional ELISA. Serial dilutions of Ipilimumab were added into ab180054: Recombinant human CD80 protein (Active) (Biotin) (**ab246032**) binding reactions. The half maximal inhibitory concentration (IC50) is 0.8260 µg/mL.
Purity	> 98 % SDS-PAGE.
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	**P16410**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	AMHVAQPAVVLASSRGIASFVCEYASPGKATEVRVTVLR QADSQVTEVCA ATYMMGNELTFLDDSICTGTSSGNQVNLTIQGLRAMDTGLY ICKVELMYP PPYYLGIGNGTQIYVIDPEPCPDS
Predicted molecular weight	40 kDa including tags
Amino acids	37 to 160
Tags	Fc tag C-Terminus
Additional sequence information	CTLA4 Fc Chimera, fused with Fc fragment of Human IgG1 at the C terminus. Genbank entry: NP_005205.2.

Specifications

Our **Abpromise guarantee** covers the use of **ab180054** 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 ELISA
Form	Lyophilized

Preparation and Storage

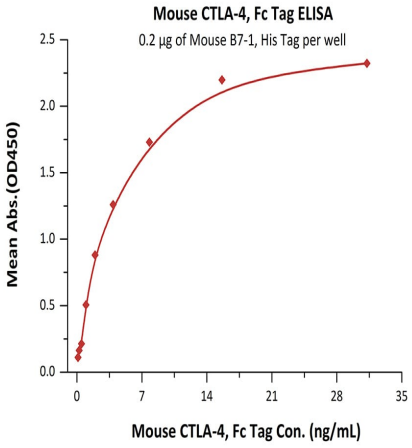
Stability and Storage	Shipped at 4°C. Store at 4°C (stable for up to 12 months). Store at -20°C or -80°C. Avoid freeze / thaw cycle. For long term storage it is recommended to add a carrier protein on reconstitution (0.1% HSA or BSA). pH: 7.4 Constituents: 5% Trehalose, 0.61% Tris, 0.75% Glycine, Sodium chloride, L-Arginine Lyophilized from 0.22 µm filtered solution. 5-10% trehalose is commonly used for freeze drying, and after reconstitution, the trehalose is mostly about 3-5% This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute with sterile deionized water to a concentration of 500 µg/ml.

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

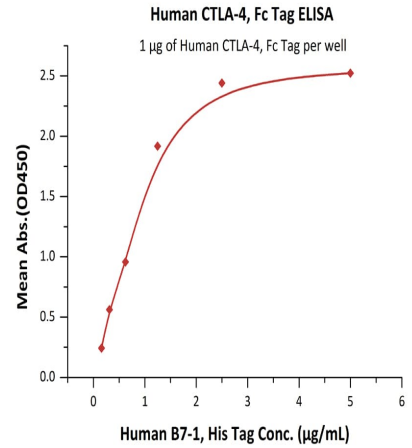
	malabsorption and failure to thrive.
Sequence similarities	Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Post-translational modifications	N-glycosylation is important for dimerization. Phosphorylation at Tyr-201 prevents binding to the AP-2 adapter complex, blocks endocytosis, and leads to 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



ELISA - Recombinant human CTLA4 protein (Fc Chimera Active) (ab180054)

Immobilized Human B7-2, His Tag at 10 μg/mL (100 μL/well) can bind ab180054 with a linear range of 2-78 ng/mL.



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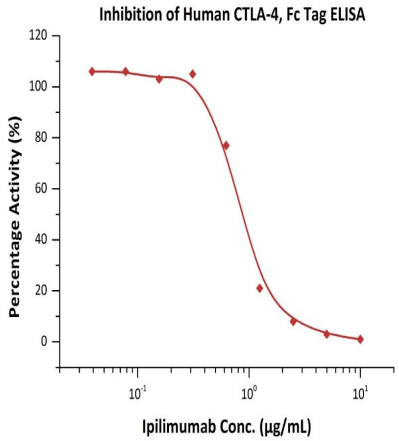

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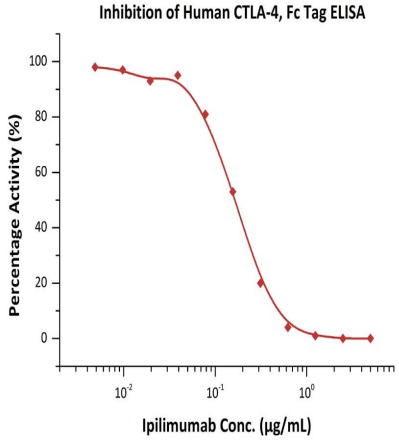

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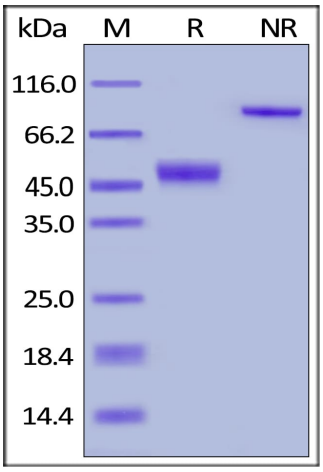

SDS-PAGE - Recombinant human CTLA4 protein (Fc Chimera Active) (ab180054)

Human CTLA-4 (Fc Tag) on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The protein migrates as 45-55 kDa under reducing (R) condition and 90 kDa under non-reducing (NR) condition.

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