Datasheet for ABIN2870729

CTLA4 Protein (AA 36-162) (His tag)

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Overview

Quantity:	200 µg
Target:	CTLA4
Protein Characteristics:	AA 36-162
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CTLA4 protein is labelled with His tag.

Product Details

Sequence:	AA 36-162
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 15.9 kDa. The protein migrates as 25-30 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CTLA4
Alternative Name:	CTLA-4 (CTLA4 Products)

Target Details

Background:	CTLA-4 (Cytotoxic T-Lymphocyte Antigen 4) is 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. Intracellular CTLA4 is also found in regulatory T cells and may be important to their function. Fusion proteins of CTLA4 and antibodies (CTLA4-Ig) have been used in clinical trials for rheumatoid arthritis.
Molecular Weight:	15.9 kDa
NCBI Accession:	NP_033973
Pathways:	Cancer Immune Checkpoints

Application Details

Restrictions:	For Research Use only

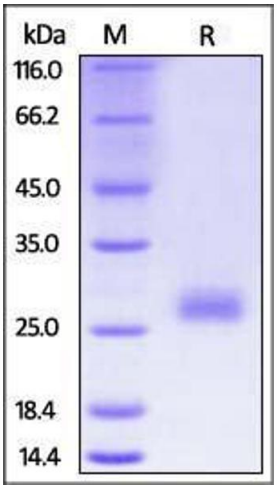
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

Publications

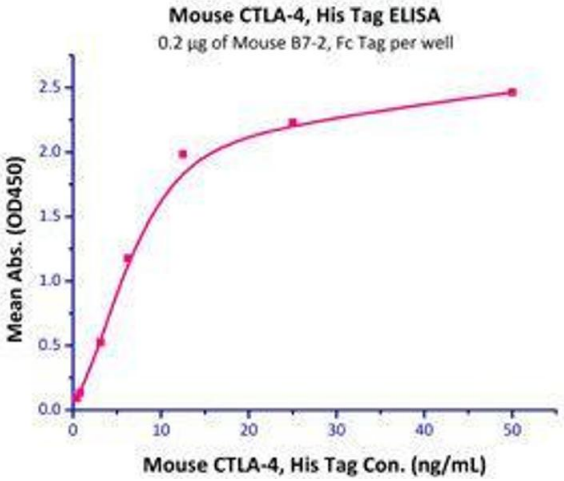
Product cited in:	Yang, Kim, Seong, Tae, Kwon: "Comparative studies of the serum half-life extension of a protein via site-specific conjugation to a species-matched or -mismatched albumin." in: **Biomaterials science**, Vol. 6, Issue 8, pp. 2092-2100, (2018) (PubMed). Kenniston, Taylor, Conley, Cosic, Kopacz, Lindberg, Comeau, Atkins, Bullen, TenHoor, Adelman, Sexton, Edwards, Nixon: "Structural basis for pH-insensitive inhibition of immunoglobulin G recycling by an anti-neonatal Fc receptor antibody." in: **The Journal of biological chemistry**, Vol. 292, Issue 42, pp. 17449-17460, (2017) (PubMed).

Images



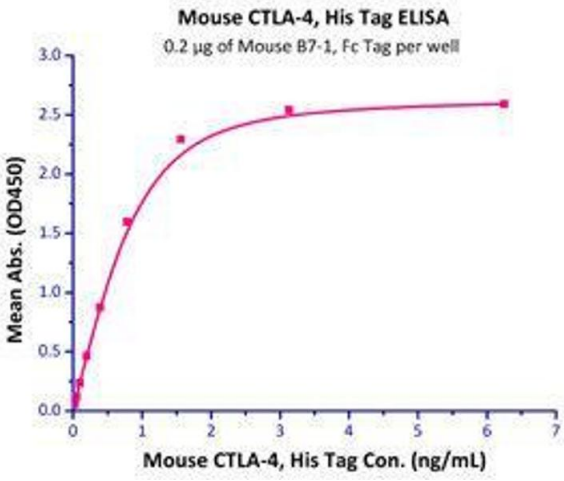
SDS-PAGE

Image 1. Mouse CTLA-4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Mouse B7-2, Fc Tag (Cat# CD6-M5251) at 5 μg/mL (100 μl/well),can bind Mouse CTLA-4, His Tag (Cat# CT4-M52H5) with a linear range of 0.8-12.5 ng/mL.



Binding Studies

Image 3. Immobilized Mouse B7-1, Fc Tag (Cat# CD0-M5259) at 2 μg/mL (100 μl/well),can bind Mouse CTLA-4, His Tag (Cat# CT4-M52H5) with a linear range of 0.02-0.8 ng/mL.