Datasheet for ABIN2487344

CTLA4 Protein (AA 37-162) (His tag)

3 Images | 3 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	CTLA4
Protein Characteristics:	AA 37-162
Origin:	Human
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 37-162
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 14.3 kDa. The protein migrates as 25-30 kDa under reducing (R) condition (SDS-PAGE) due to different extent glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	CTLA4

Target Details

Alternative Name:	CTLA-4 (CTLA4 Products)
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. T cell activation through the T cell receptor and CD28 leads to increased expression of CTLA-4, an inhibitory receptor for B7 Molecules. Fusion proteins of CTLA4 and antibodies (CTLA4-Ig) have been used in clinical trials for rheumatoid arthritis.
Molecular Weight:	15.4 kDa
NCBI Accession:	NP_005205
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
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C), After reconstitution under sterile conditions for 3 months (-70 °C).

Publications

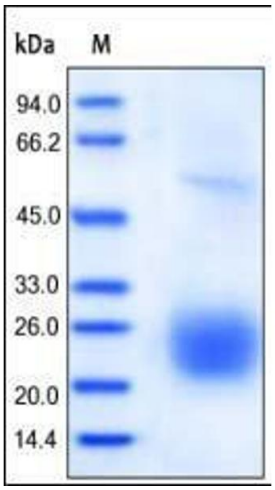
Product cited in:	Simons, Lim, Carter, Wagner, Wayham, Adler, Johnson: "Affinity maturation of antibodies by combinatorial codon mutagenesis versus error-prone PCR." in: **mAbs**, Vol. 12, Issue 1, pp. 1803646, (2020) (PubMed).

Publications

Ganesan, Ahmed, Okoye, Arutyunova, Babu, Turnbull, Kundu, Shields, Agopsowicz, Xu, Tabana, Srivastava, Zhang, Moon, Belovodskiy, Hena, Kandadai, Hosseini, Hitt, Walker, Smylie, West, Siraki, Lemieux et al.: "Comprehensive in vitro characterization of PD-L1 small molecule inhibitors. ..." in: **Scientific reports**, Vol. 9, Issue 1, pp. 12392, (2019) (PubMed).

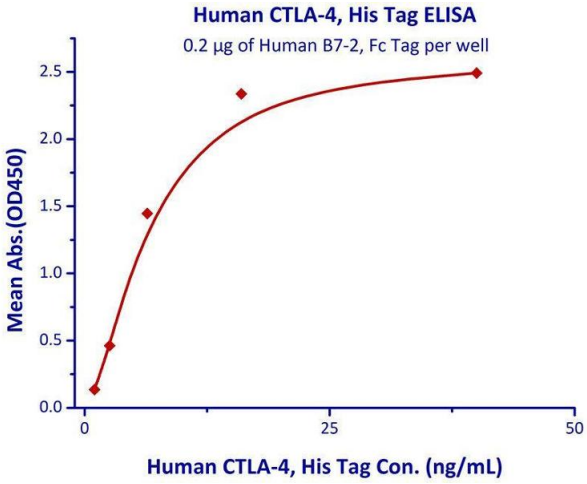
Ross, Robinson, Amato, McMillan, Westcott, Wolf, Robinson: "Therapeutic monoclonal antibodies in human breast milk: a case study." in: **Melanoma research**, Vol. 24, Issue 2, pp. 177-80, (2014) (PubMed).

Images



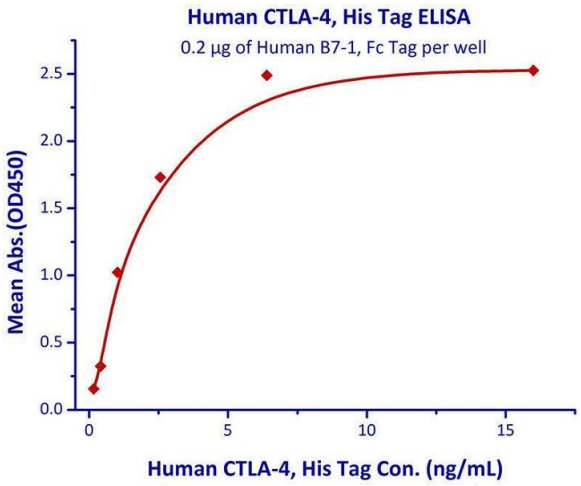
SDS-PAGE

Image 1. Human 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 Human B7-2, Fc Tag with a linear range of 1-6.4 ng/mL.



Binding Studies

Image 3. Immobilized Human B7-1, Fc Tag with a linear range of 0.16-2.56 ng/mL.

