Datasheet for ABIN2180929

CTLA4 Protein (AA 37-160) (His tag,AVI tag,Biotin)

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Overview

Quantity:	200 µg
Target:	CTLA4
Protein Characteristics:	AA 37-160
Origin:	Cynomolgus, Rhesus Monkey
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This CTLA4 protein is labelled with His tag,AVI tag,Biotin.

Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 37-160
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	This protein carries a Avi tag (AvitagTM) at the C-terminus, followed by a polyhistidine tag. The protein has a calculated MW of 15.9 kDa. The protein migrates as 23-26 kDa on a SDS-PAGE gel under reducing (R) condition due to 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
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:	15.9 kDa
NCBI Accession:	XP_005574071
UniProt:	G7PL88
Pathways:	Cancer Immune Checkpoints

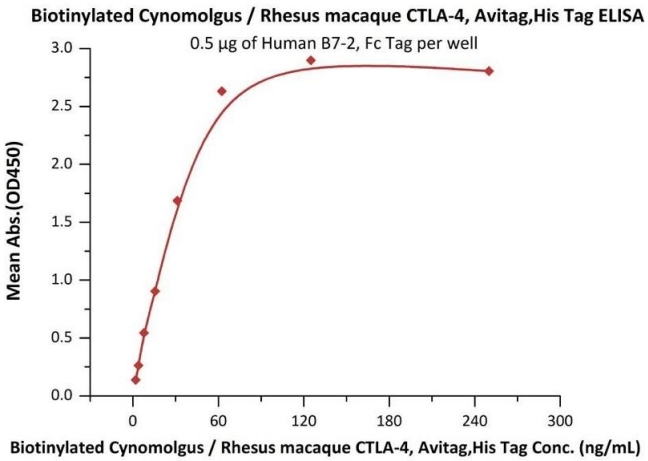
Application Details

Comment:	Ready-to-use AvitagTM biotinylated protein: The product is exclusively produced using the AvitagTM technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA. This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.
Restrictions:	For Research Use only

Handling

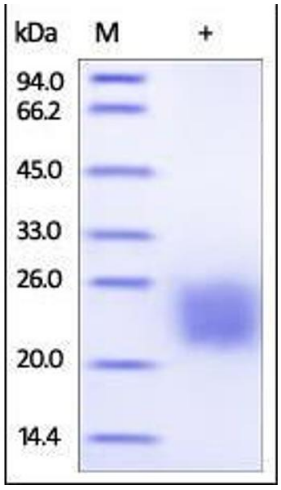
Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C), After reconstitution under sterile conditions for 3 months (-70 °C).

Images



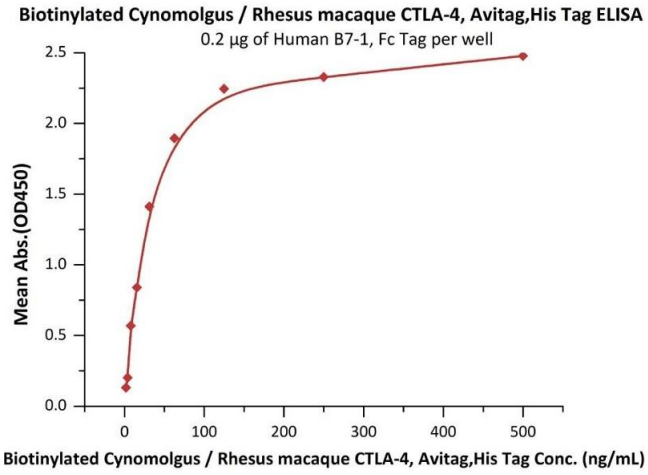
ELISA

Image 1. Immobilized Human B7-2, Fc Tag (ABIN2180621,ABIN2180620) at 5 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag (ABIN2180929,ABIN3071725) with a linear range of 2-63 ng/mL (Routinely tested).



SDS-PAGE

Image 2. Biotinylated Cynomolgus CTLA-4 on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 92%.



ELISA

Image 3. Immobilized Human B7-1, Fc Tag (ABIN2180846,ABIN2180845) at 2 μg/mL (100 μL/well) can bind Biotinylated Cynomolgus / Rhesus macaque CTLA-4, Avitag,His Tag (ABIN2180929,ABIN3071725) with a linear range of 2-31 ng/mL (QC tested).