



Datasheet for ABIN2870534

## CTLA4 Protein (AA 37-162) (Fc Tag,AVI tag,Biotin)



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### Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 200 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 Fc Tag,AVI tag,Biotin. |

### Product Details

|                  |  |
|------------------|--|
| Brand:           | MABSol@,PrecisionAvi   |
| Sequence:        | AA 37-162  |
| 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 human IgG1 Fc fragment at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 42 kDa. The protein migrates as 50-55 kDa on a SDS-PAGE gel under reducing (R) condition due to glycosylation. |
| Purity:          | >95 % as determined by reduced SDS-PAGE.   |
| Endotoxin Level: | Less than 1.0 EU per µg by the LAL method.   |

## Target Details

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|                   |  |
|-------------------|--|
| Target:           | CTLA4  |
| Alternative Name: | CTLA-4 ( <a href="#">CTLA4 Products</a> )  |
| Background:       | <p>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.</p> |
| Molecular Weight: | 41.8 kDa   |
| NCBI Accession:   | <a href="#">NP_005205</a>  |
| Pathways:         | <a href="#">Cancer Immune Checkpoints</a>  |

## Application Details

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|               |  |
|---------------|--|
| Comment:      | <p>Ready-to-use Avitag<sup>TM</sup> biotinylated protein:</p> <p>The product is exclusively produced using the Avitag<sup>TM</sup> 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.</p> <p>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.</p> |
| Restrictions: | For Research Use only  |

## Handling

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|         |             |
|---------|-------------|
| Format: | Lyophilized |
|---------|-------------|

## Handling

Buffer: Tris with Glycine, Arginine and NaCl, pH 7.5

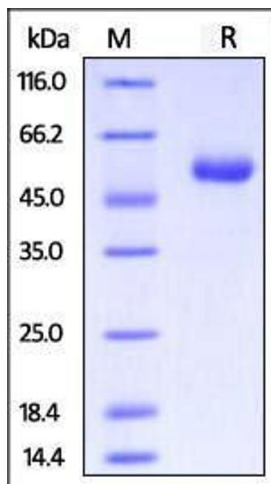
Handling Advice: Please avoid repeated freeze-thaw cycles.

Storage: -20 °C

## Publications

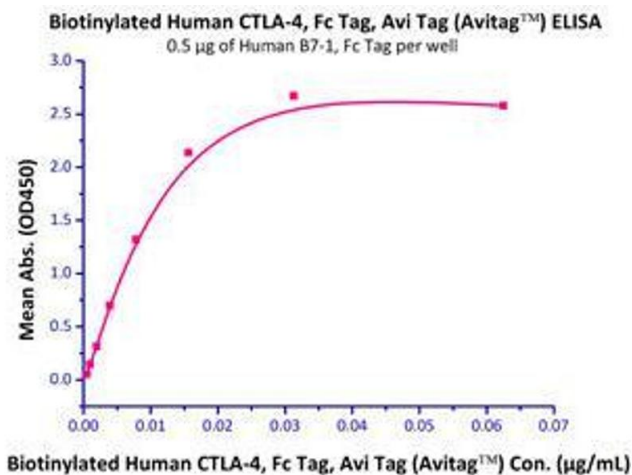
Product cited in: Okada, Kajiya, Omata, Matsumoto, Sato, Kobayashi, Nakamura, Kaneko, Nakamura, Koyama, Sudo, Shin, Okamoto, Watanabe, Tachibana, Hirose, Saito, Takai, Matsumoto, Nakamura, Okabe, Miyamoto, Tanaka: "CTLA4-Ig Directly Inhibits Osteoclastogenesis by Interfering With Intracellular Calcium Oscillations in Bone Marrow Macrophages." in: **Journal of bone and mineral research : the official journal of the American Society for Bone and Mineral Research**, (2019) ([PubMed](#)).

## Images



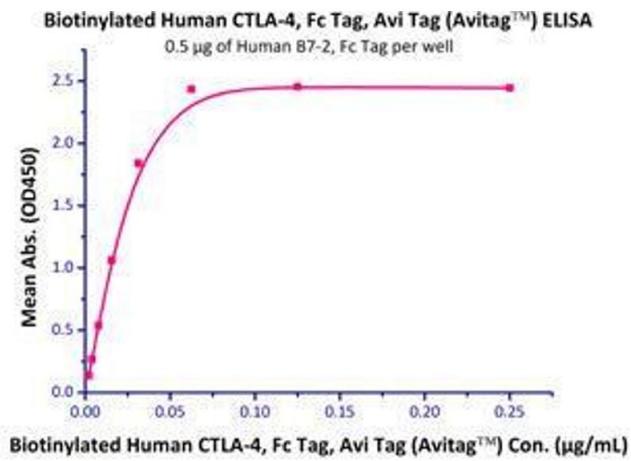
### SDS-PAGE

**Image 1.** Biotinylated Human CTLA-4, Fc 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 B7-1, Fc Tag (Cat# B71-H5259) at 5 µg/mL (100 µl/well), can bind Biotinylated Human CTLA-4, Fc tag (Cat# CT4-H82F3) with a linear range of 0.1-8 ng/mL.



### Binding Studies

**Image 3.** Immobilized Human B7-2, Fc Tag (Cat# CD6-H5257) at 5 µg/mL (100 µl/well), can bind Biotinylated Human CTLA-4, Fc tag (Cat# CT4-H82F3) with a linear range of 2-30 ng/mL.