

## Recombinant Mouse Ctla4 Protein, His-tagged, Alexa Fluor 647 conjugated

**Cat. No.** Ctla4-3307MAF647    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Alexa Fluor 647 conjugated recombinant Mouse Ctla4 (Glu36-Phe162) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | Glu36-Phe162                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Description</b>      | <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> |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                     |                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b>               | 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.                                                                                                                                                                                             |
| <b>N-terminal Sequence Analysis</b> | Glu 36                                                                                                                                                                                                                                                                                                                                   |
| <b>Endotoxin</b>                    | < 1.0 EU/ µg by the LAL method.                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>                       | > 95 % as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                         |
| <b>Characteristic</b>               | Disulfide-linked homodimer<br>Labeled with Alexa Fluor 647 via amines<br>Excitation = 650 nm<br>Emission = 668 nm                                                                                                                                                                                                                        |
| <b>Storage</b>                      | For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.<br>Please avoid repeated freeze-thaw cycles.<br>This product is stable after storage at:<br>-20 to -70 centigrade for 12 months in lyophilized state;<br>-70 centigrade for 3 months under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.                                                                                                                                                                                                                                                                 |
| <b>Reconstitution</b>               | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                                   |
| <b>Conjugation</b>                  | Alexa Fluor 647                                                                                                                                                                                                                                                                                                                          |

## GENE INFORMATION

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|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name       | Ctla4                                                                                                                                                                  |
| Official Symbol | Ctla4                                                                                                                                                                  |
| Synonyms        | CTLA4; cytotoxic T-lymphocyte-associated protein 4; cytotoxic T-lymphocyte protein 4; CD152 antigen; cytotoxic T-lymphocyte-associated antigen 4; Cd152; Ly-56; Ctla-4 |
| Gene ID         | 12477                                                                                                                                                                  |
| mRNA Refseq     | NM_009843                                                                                                                                                              |
| Protein Refseq  | NP_033973                                                                                                                                                              |
| UniProt ID      | P09793                                                                                                                                                                 |

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