

# Recombinant Rat Ctla4 Protein, hFc-tagged, FITC conjugated

**Cat. No.** Ctla4-1143RF    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | FITC conjugated recombinant Rat Ctla4 (Ile38-Asp161) protein was fused to human IgG1 Fc tag at C-terminus and expressed in human 293 cells (HEK293).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | Ile38-Asp161                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Mass</b>   | The protein has a calculated MW of 40.2 kDa. The protein migrates as 50-55 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | under reducing (R) condition (SDS-PAGE).                                                                                                                                                                                                                                                                                                 |
| <b>N-terminal Sequence Analysis</b> | Ile 38                                                                                                                                                                                                                                                                                                                                   |
| <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 FITC via amines<br>Excitation source: 488 nm spectral line, argon-ion laser<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 535 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 Tris with Glycine, Arginine and NaCl, pH7.5, 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>                  | FITC                                                                                                                                                                                                                                                                                                                                     |

## GENE INFORMATION

|                 |                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name       | Ctla4                                                                                                                                                        |
| Official Symbol | Ctla4                                                                                                                                                        |
| Synonyms        | CTLA4; cytotoxic T-lymphocyte-associated protein 4; cytotoxic T-lymphocyte protein 4; soluble form; CD152 antigen; transmembrane form; Cd152; CTLA-4; sCTLA4 |
| Gene ID         | 63835                                                                                                                                                        |
| mRNA Refseq     | NM_031674                                                                                                                                                    |
| Protein Refseq  | NP_113862                                                                                                                                                    |
| UniProt ID      | Q62859                                                                                                                                                       |

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