Catalog # CT4-C5227



Synonym

CTLA4,CD152

Source

Cynomolgus / Rhesus macaque CTLA-4, His Tag (CT4-C5227) is expressed from human 293 cells (HEK293). It contains AA Ala 37 - Ser 160 (Accession # <u>G7PL88-1</u>). In the region Ala 37 - Ser 160, the AA sequence of Cynomolgus and Rhesus macaque CTLA-4 are homologus.

Predicted N-terminus: Ala 37

Molecular Characterization

CTLA-4(Ala 37 - Ser 160) G7PL88-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 14.1 kDa. The protein migrates as 19-24 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Cynomolgus / Rhesus macaque CTLA-4, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Cynomolgus / Rhesus macaque CTLA-4, His Tag (Cat. No. CT4-C5227) is more than 95% and the molecular weight of this protein is around 22-32 kDa verified by SEC-MALS.



Bioactivity-ELISA



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Immobilized Cynomolgus / Rhesus macaque B7-1, Fc Tag (Cat. No. CD0-C5252) at 2 μ g/mL (100 μ L/well) can bind Cynomolgus / Rhesus macaque CTLA-4, His Tag (Cat. No. CT4-C5227) with a linear range of 0.06-0.5 ng/mL (QC tested).

Immobilized Cynomolgus / Rhesus macaque B7-2, Fc Tag (Cat. No. CD6-C5254) at 2 μ g/mL (100 μ L/well) can bind Cynomolgus / Rhesus macaque CTLA-4, His Tag (Cat. No. CT4-C5227) with a linear range of 4-31 ng/mL (Routinely tested).

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. Fusion proteins of CTLA4 and antibodies (CTLA4-Ig) have been used in clinical trials for rheumatoid arthritis.





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