

# Active Recombinant Cynomolgus Monkey CTLA4 protein, Fc-tagged

**Cat. No.** CTLA4-192C    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Cynomolgus Monkey CTLA4(Ala37-Asp161) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.
<b>Species</b>	Cynomolgus
<b>Source</b>	HEK293
<b>ProteinLength</b>	37-161 a.a.
<b>Description</b>	<p>CTLA-4 (cytotoxic T-lymphocyte-4, designated CD152), is a type I transmembrane T cell inhibitory molecule that is a member of the Ig superfamily. Cyno CTLA-4 has a 98% homology to human CTLA-4. Human or mouse CTLA-4 cDNA encodes 223 amino acids (aa) including a 35 aa signal sequence, a 126 aa extracellular domain (ECD) with one Ig-like V-type domain, a 21 aa transmembrane (TM) sequence, and a 41 aa cytoplasmic sequence. It is found as a covalent homodimer of 41-43 kDa. Within the ECD, human CTLA-4 shares 98%, 68%, 71% and 83-86% aa sequence identity with cynomolgus, mouse, rat and porcine/bovine/rabbit/feline/canine CTLA-4, respectively. A 174 aa form that lacks TM and cytoplasmic sequences (sCTLA-4) is possibly secreted. In mouse, an isoform lacking the Ig-like domain has ligand-independent inhibitory activity and is termed liCTLA-4. CD28, which is structurally related to CTLA-4, is constitutively expressed on naïve T cells and promotes T cell activation when engaged by B7-2 on antigen-presenting cells (APC) within the immunological synapse (IS). In contrast, CTLA-4 is recruited from intracellular vesicles to the IS beginning 1-2 days after</p>

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T cell activation. It forms a linear lattice with B7-1 on APC, inducing negative regulatory signals and ending T cell activation. Abatacept, a therapeutic human CTLA-4-Ig fusion protein (trade name Orencia), competes with CD28 for B7-1 and B7-2 binding and has been used to antagonize T cell activation in autoimmune conditions and to enhance transplant survival. Mice deleted for CTLA-4 show no abnormalities until after birth, but then develop lethal autoimmune reactions due to continued T cell activation and poor control by regulatory T cells, which constitutively express CTLA-4 in wild-type mice and humans.

**Predicted N Terminal** Ala37

**Form** Lyophilized from a 0.2 µm filtered solution in PBS.

**Bio-activity** Measured by its binding ability in a functional ELISA. When Recombinant Cynomolgus Monkey CTLA-4 Fc Chimera is coated at 0.5 µg/mL, 100 µL/well, Recombinant Human B7-1/CD80 Fc Chimera binds with an ED50 of 5-30 ng/mL.

**Molecular Mass** Predicted Molecular Mass: 40 kDa  
SDS-PAGE: 46-57 kDa, reducing conditions

**Endotoxin** <0.1 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
12 months from date of receipt, -20 to -70 centigrade as supplied.  
1 month, 2 to 8 centigrade under sterile conditions after reconstitution.  
3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

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**Reconstitution** Reconstitute at 1 mg/mL in PBS.

## GENE INFORMATION

**Gene Name** CTLA4 cytotoxic T-lymphocyte associated protein 4 [ *Macaca fascicularis* ]

**Official Symbol** CTLA4

**Synonyms** CTLA4; cytotoxic T-lymphocyte associated protein 4

**Gene ID** 102115124

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