Active Recombinant Cynomolgus Monkey CTLA4 protein, Fc-tagged

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

SPECIFICATION

Product Overview	Recombinant Cynomolgus Monkey CTLA4(Ala37-Asp161) fused with Fc region of Human IgG1 at C-terminal was expressed in HEK293.
Species	Cynomolgus
Source	HEK293
ProteinLength	37-161 a.a.
Description	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 9 8% homology to human CTLA-4. Human or mouse CTLA-4 cDNA encodes 223 amin o 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 secret ed. 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 const itutively 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 cont rast, CTLA-4 is recruited from intracellular vesicles to the IS beginning 1-2 days after

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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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