

Active Recombinant Mouse CTLA4 Homodimer Protein, His tagged

Cat. No. CTLA4-36M **Lot. No.** (See product label)

SPECIFICATION

Product Overview CTLA-4 protein dimer contains a CTLA-4 extracellular domain (UniProt# P09793) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus was expressed in HEK293T.

Species Mouse

Source HEK293T

ProteinLength 36-161 aa

Description Cytotoxic T-lymphocyte associated protein 4 (CTLA-4), also known as CD152 (cluster of differentiation 152), CTLA4, ALPS5, CD, CELIAC3, GRD4, GSE, and IDDM12 is a member of the immunoglobulin superfamily. CTLA-4 contains extracellular immunoglobulin-like (Ig-like) domains (an Ig-V-like and an Ig-C-like domain), a transmembrane domain, and a cytoplasmic tail. As an immune checkpoint CTLA-4 binds both CD80 (Cluster of differentiation 80) and CD86 (Cluster of differentiation 86) to transmit an inhibitory signal with T cells, competing with CD28 (Cluster of differentiation 28) which transmits a stimulatory signal. It is often overexpressed in human malignancies caused by immunosurveillance, making the inhibition of immune checkpoint proteins like CTLA-4 an emerging strategy in cancer therapy. CTLA-4 gene variants have been associated with Type 1 diabetes, Graves' disease, Hashimoto's thyroiditis, celiac disease, and other autoimmune diseases. While structurally and functionally similar to human CTLA-4, mouse CTLA-4 is a species-

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	specific tool essential for preclinical studies, basic research and translational research in cancer immunotherapy.
Molecular Mass	44 kDa
Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: SPR for CTLA-4-specific antibody and CD80 ligand protein binding assays. ELISA for CTLA-4 and CD80 ligand protein binding assays. Suggested Applications: BLI for CTLA-4-specific antibody and CD80 protein binding assays. Animal immunization, RUO.
Storage	Store at -80 centigrade.
Storage Buffer	0.22µm filtered PBS, pH 7.4
Shipping	Frozen Dry Ice

GENE INFORMATION

Gene Name	Ctla4 cytotoxic T-lymphocyte-associated protein 4 [<i>Mus musculus</i> (house mouse)]
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

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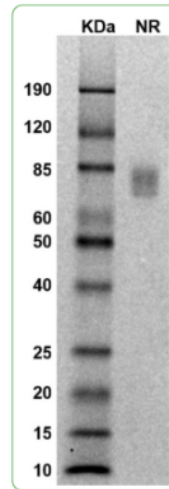
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mRNA Refseq [NM_009843](#)

Protein Refseq [NP_033973](#)

UniProt ID [P09793](#)

SDS-PAGE and WB



MW: Molecular Weight marker reduced condition NR: CTLA-4 dimer under non-reduced condition

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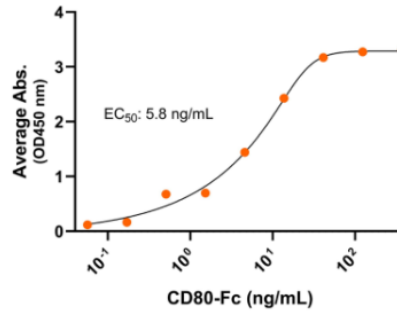
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**Bioactivity-Ligand
Binding**

Mouse CD80-Fc dimer / CTLA-4-His dimer ELISA

0.2µg of CTLA-4 protein dimer per well



Immobilized mouse CTLA-4 protein dimer, His Tag at 2 µg/mL (100 µL/well) can bind mouse CD80 protein dimer, Fc Tag, with half maximal effective concentration (EC₅₀) range of 2.9-11.7 ng/mL (QC tested).

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