Active Recombinant Human CTLA4 Homodimer Protein, His tagged

Cat. No. CTLA4-35H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CTLA-4 protein dimer contains a CTLA-4 extracellular domain (Uniprot# P16410) fused with a proprietary dimer motif followed by a His tag at the C-terminus was expressed in HEK293T.
Species	Human
Source	HEK293T
ProteinLength	36-161 aa
Description	Cytotoxic T-lymphocyte associated protein 4 (CTLA-4), also known as CD152 (cluster of differentiation 152), CD152 antigen, CTLA4, ALPS5, CD, CELIAC3, GRD4, GSE, and IDDM12 is a member of the immunoglobulin superfamily. CTLA-4 contains an extracellular immunoglobulin-like (Ig-like) domain (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 to T cells, competing with CD28 (Cluster of differentiation 28) which transmits a stimulatory signal. It is often overexpressed in 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.

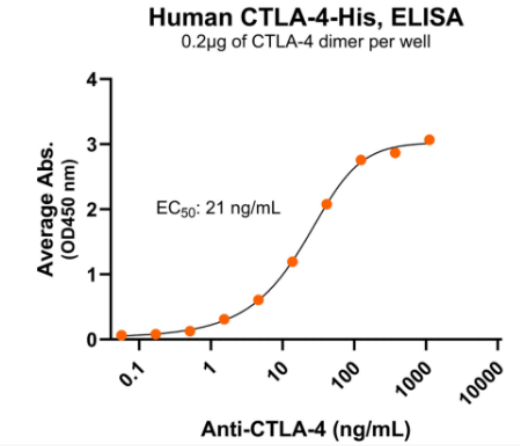
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Molecular Mass	50 kDa
Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: ELISA, Western blot for CTLA-4-specific antibody and CD80 ligand protein binding assays. BLI protein binding assays for CTLA-4 with CD80. Suggested Applications: SPR & BLI for CTLA-4-specific antibody or CD80 ligand protein binding assays. Western blot with CTLA-4-specific antibody. ELISA for CTLA-4-specific antibody or CD80 ligand protein binding assays. Animal immunization, RUO.
Storage	Store at -80 centigrade.
Storage Buffer	0.22μm filtered PBS, pH 7.4
Shipping	Frozen Dry Ice

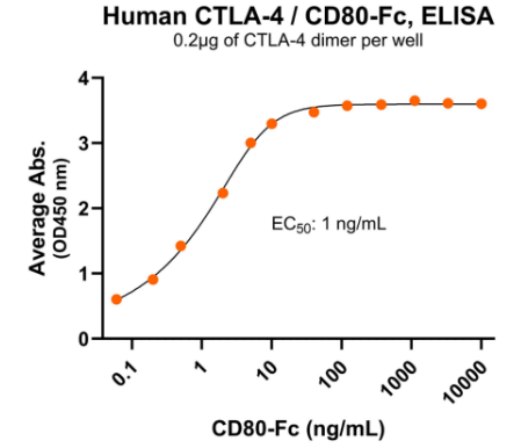
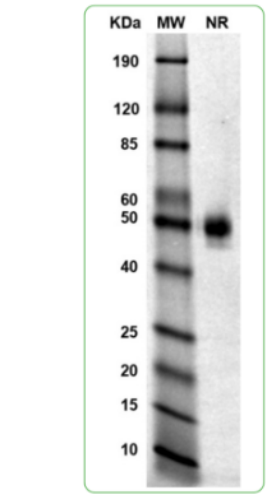
GENE INFORMATION

Gene Name	CTLA4 cytotoxic T-lymphocyte-associated protein 4 [Homo sapiens (human)]
Official Symbol	CTLA4
Synonyms	CTLA4; cytotoxic T-lymphocyte-associated protein 4; celiac disease 3, CELIAC3; cytotoxic T-lymphocyte protein 4; CD; CD28; CD152; GSE; ICOS; CD152 isoform; celiac disease 3; cytotoxic T-lymphocyte antigen 4; cytotoxic T-lymphocyte-associated antigen 4; cytotoxic T-lymphocyte-associated serine esterase-4; cytotoxic T lymphocyte associated antigen 4 short spliced form; ligand and transmembrane spliced cytotoxic T lymphocyte associated antigen 4; GRD4; CTLA-4; IDDM12; CELIAC3;

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Gene ID	1493
mRNA Refseq	NM_001037631
Protein Refseq	NP_001032720
MIM	123890
UniProt ID	P16410
Bioactivity-Antibody Binding	 Immobilized human CTLA-4 dimer protein, His Tag at 2 μg/mL (100 μL/well) can bind anti-human CTLA-4 monoclonal antibody with half maximal effective concentration (EC50) range of 10.5-42 ng/mL (QC tested).

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Bioactivity-Ligand Binding	 Immobilized human CTLA-4 dimer protein, His Tag at 2 μg/mL (100 μL/well) can bind human CD80 dimer protein, with half maximal effective concentration (EC50) range of 0.5-2 ng/mL (QC tested).
SDS-PAGE and WB	 MW: Molecular Weight marker reduced condition NR: CTLA-4 dimer under non-reducing condition

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