

## HUMAN CTLA-4 PROTEIN, MFC-HIS TAG

**Cat.#:** 11145

**Product Name:** Human CTLA-4 Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** CTLA4;CD152

**Target:** CTLA-4

**UNIPROT ID:** P16410

**Description:** Recombinant human CTLA-4 protein with C-terminal mouse Fc and 6xHis tag

**Background:** This gene is a member of the immunoglobulin superfamily and encodes a protein which transmits an inhibitory signal to T cells. The protein contains a V domain, a transmembrane domain, and a cytoplasmic tail. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. The membrane-bound isoform functions as a homodimer interconnected by a disulfide bond, while the soluble isoform functions as a monomer. Mutations in this gene have been associated with insulin-dependent diabetes mellitus, Graves disease, Hashimoto thyroiditis, celiac disease, systemic lupus erythematosus, thyroid-associated orbitopathy, and other autoimmune diseases.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 54 kDa after removal of the signal peptide.

**Molecular Characterization:** CTLA-4(Gln36-Ser161) mFc(Pro99-Lys330) 6xHis

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

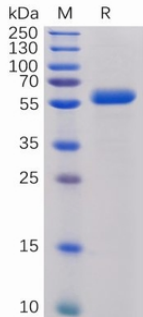


Figure 1. Human CTLA-4 Protein, mFc-His Tag on SDS-PAGE under reducing condition.

### Human CTLA4, mFc-His Tagged protein ELISA

0.2 µg of Human B7-1, hFc Tagged protein per well

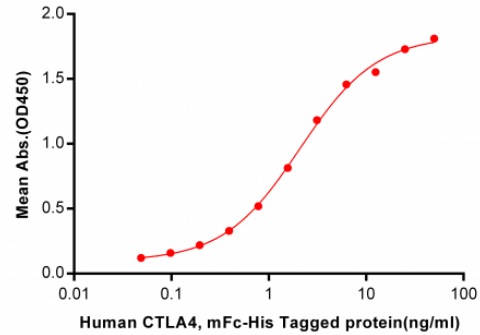


Figure 2. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human B7-1, hFc tagged protein 11283 can bind Human CTLA4, mFc-His tagged protein (11145) in a linear range of 0.048-2.094 ng/ml.

### Human CTLA4, mFc-His Tagged protein ELISA

0.2 µg of Human B7-2, hFc Tagged protein per well

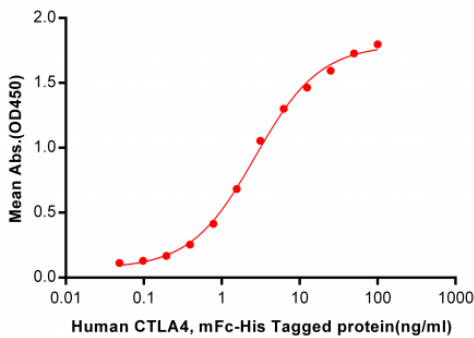


Figure 3. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human B7-2, hFc tagged protein 11284 can bind Human CTLA4, mFc-His tagged protein (11145) in a linear range of 0.048-2.694 ng/ml.

### Human CTLA-4, mFc-His Tagged protein ELISA

0.2 µg of CTLA-4, mFc-His Tagged protein per well

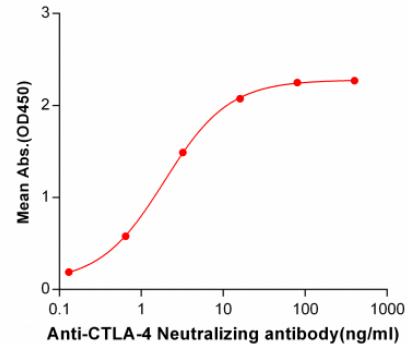


Figure 4. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human CTLA-4, mFc-His tagged protein (11145) can bind Anti-CTLA-4 Neutralizing antibody 28031 in a linear range of 0.13-16.0 ng/ml.

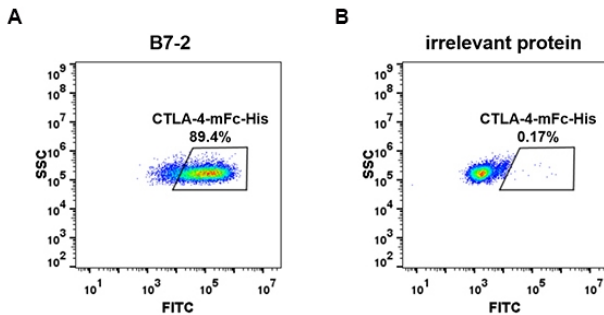


Figure 6. Flow cytometry analysis with 1µg/ml Human CTLA4 Protein, mFc-His tag (11145) on Expi293 cells transfected with human B7-1 (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).

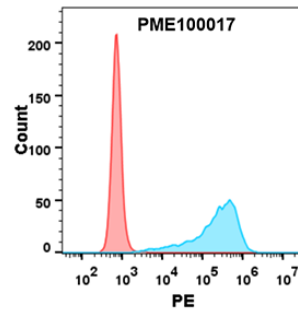


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