

HUMAN CTLA-4 PROTEIN, HFC TAG

Cat.#: I1289

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 human Fc 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 39.6 kDa after removal of the signal peptide. The apparent molecular mass of CTLA4-hFc is approximately 40-55 kDa due to glycosylation.

Molecular Characterization: CTLA-4(Gln36-Ser161) hFc(Glu99-Ala330)

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.

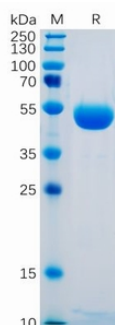


Figure 1. Human CTLA-4 Protein, hFc Tag on SDS-PAGE under reducing condition.

Human CTLA-4, hFc Tagged protein ELISA

0.2 µg of CTLA-4, hFc Tagged protein per well

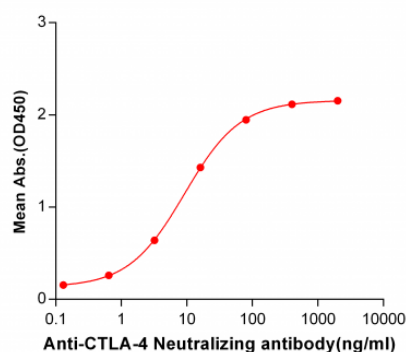


Figure 2. ELISA plate pre-coated by 2 µg/ml (100 µl/well) Human CTLA-4, hFc tagged protein (I1289) can bind Anti-CTLA4 Neutralizing antibody 28031 in a linear range of 0.64-80.0 ng/ml.

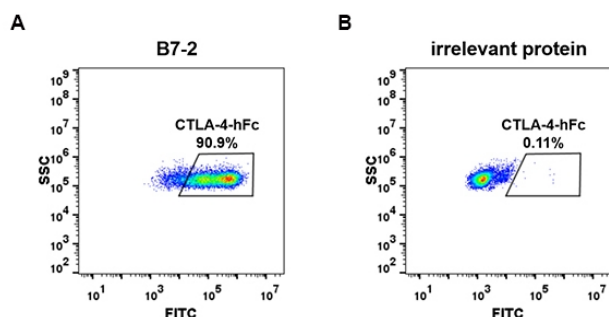


Figure 3. HEK293 cell line transfected with irrelevant protein (B) and human B7-2 (A) were surface stained with Human CTLA4, hFc tagged protein (I1289) 1µg/ml followed by Alexa 488-conjugated anti-human IgG secondary antibody.

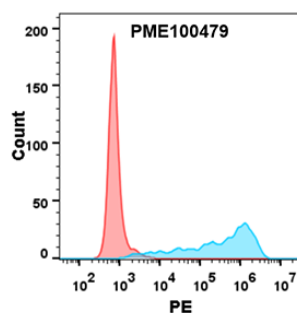


Figure 4. Flow cytometry analysis with 1µg/ml Human CTLA4 Protein, hFc tag (I1289) on Expi293 cells transfected with human B7-1 (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).