

## HUMAN IL-4 (C-FC) PROTEIN

**Cat.#:** 12088

**Product Name:** Human IL-4 (C-Fc) Protein

**Size:** 10 µg, 50 µg and 100 µg

**Synonyms:** Interleukin-4;IL-4;B-Cell Stimulatory Factor 1;BSF-1;Binetrakin;Lymphocyte Stimulatory Factor 1;Pitrakinra;IL4

**Target:** IL-4

**UNIPROT ID:** P05112

**Description:** Recombinant Human Interleukin-4 is produced by our Mammalian expression system and the target gene encoding His25-Ser153 is expressed with a Fc tag at the C-terminus.

**Background:** Interleukin-4 (IL-4) is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. IL-4 is produced by mast cells, T cells, and bone marrow stromal cells. IL-4 regulates the differentiation of naive CD4 T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergic response.

**Species/Host:** HEK293

**Molecular Weight:** 41.9 KDa

**Molecular Characterization:** Not available

**Purity:** Greater than 95% as determined by reducing SDS-PAGE.

**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.

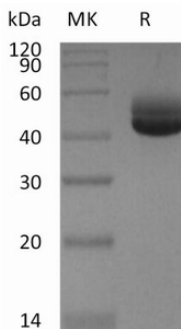


Figure 1. Greater than 95% as determined by reducing SDS-PAGE.

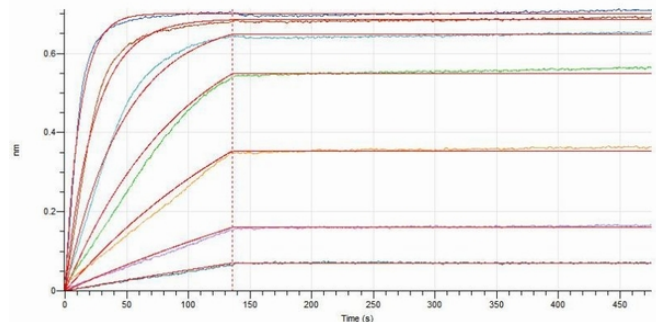


Figure 2. Loaded Cynomolgus IL-4RA-His on HIS1K Biosensor, can bind Human IL-4-Fc with an affinity constant of  $<10^{-3}$  nM as determined in BIA assay.

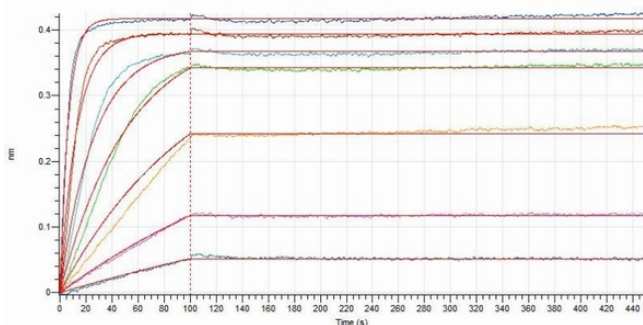


Figure 3. Loaded Human IL-4RA-His on HIS1K Biosensor, can bind Human IL-4-Fc with an affinity constant of  $<10^{-3}$  nM as determined in BIA assay.

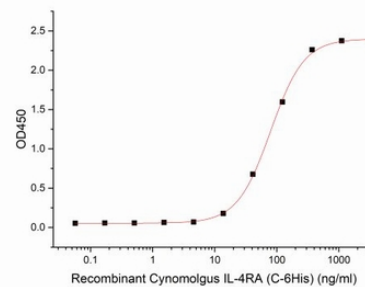


Figure 4. Immobilized Human IL-4-Fc at 5µg/ml (100 µl/well) can bind Cynomolgus IL-4Ra-His. The ED50 of Recombinant Human IL-4Ra-His is 79.49 ng/ml.