

## HUMAN TNFA PROTEIN, HIS TAG

**Cat.#:** 11199

**Product Name:** Human TNF $\alpha$  Protein

**Size:** 10  $\mu$ g, 50  $\mu$ g and 100  $\mu$ g

**Synonyms:** DIF;NF- $\alpha$ ;NFA;NFSF2;achexin;achectin;NF $\alpha$

**Target:** TNFA

**UNIPROT ID:** P01375

**Description:** Recombinant human TNF $\alpha$  protein with C-terminal 6xHis tag

**Background:** This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine.

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 18.1 kDa after removal of the signal peptide.

**Molecular Characterization:** TNF $\alpha$ (Val77-Leu233) 6xHis tag

**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.

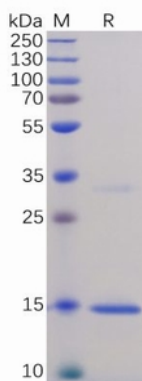


Figure 1. Human TNF $\alpha$  Protein, His Tag on SDS-PAGE under reducing condition.

### Human TNF $\alpha$ , His Tagged protein ELISA

0.1  $\mu$ g of Human TNF $\alpha$ , His Tagged protein per well

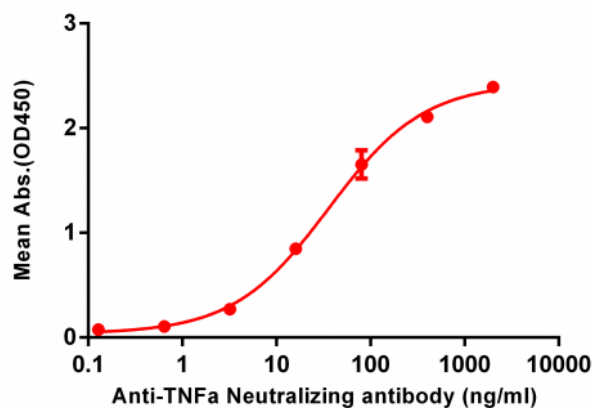


Figure 2. ELISA plate pre-coated by 1  $\mu$ g/ml (100  $\mu$ l/well) Human TNF $\alpha$ , His tagged protein (11199) can bind Anti-TNF $\alpha$  Neutralizing antibody 28064 in a linear range of 0.64–16 ng/ml.