ARG82985
Human TNF alpha ELISA Kit

Package: 96 wells
Store at: 4°C or -20°C (depending on the component)

Summary

Product Description	ARG82985 Human TNF alpha ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human TNF alpha in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	TNF alpha
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm
Sensitivity	7.8 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	15.6 - 1000 pg/ml
Sample Volume	50 µl
Alternate Names	Tumor necrosis factor ligand superfamily member 2; DIF; Cachectin; ICD2; ICD1; N-terminal fragment; TNF-a; TNFA; TNFSF2; TNF-alpha; Tumor necrosis factor; NTF

Application Instructions

Assay Time	~4.5 hours

Properties

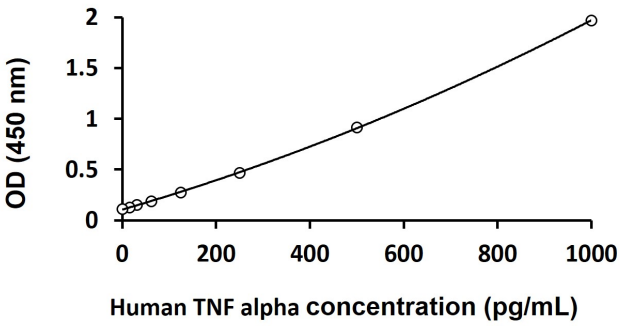
Form	96 well
Storage instruction	Store components at 4°C or -20°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	TNF
Gene Full Name	tumor necrosis factor
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/TNFBR. 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. [provided by RefSeq, Jul 2008]

Function	Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Impairs regulatory T-cells (Treg) function in individuals with rheumatoid arthritis via FOXP3 dephosphorylation. Upregulates the expression of protein phosphatase 1 (PP1), which dephosphorylates the key 'Ser-418' residue of FOXP3, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]
Highlight	Related products: TNF alpha antibodies; TNF alpha ELISA Kits; TNF alpha Duos / Panels; TNF alpha recombinant proteins; Related news: HMGB1 in inflammation Inflammatory Cytokines LKB1 deficiency in T cells promotes gut tumors New ELISA data calculation tool: Simplify the ELISA analysis by GainData
Research Area	Cancer kit; Cell Biology and Cellular Response kit; Immune System kit; Metabolism kit; Signaling Transduction kit
PTM	The soluble form derives from the membrane form by proteolytic processing. The membrane-bound form is further proteolytically processed by SPPL2A or SPPL2B through regulated intramembrane proteolysis producing TNF intracellular domains (ICD1 and ICD2) released in the cytosol and TNF C-domain 1 and C-domain 2 secreted into the extracellular space. The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1. O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.

Images



ARG82985 Human TNF alpha ELISA Kit standard curve image

ARG82985 Human TNF alpha ELISA Kit results of a typical standard run with optical density reading at 450 nm.