

ARG82687 Bovine TNF alpha ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82687 Bovine TNF alpha ELISA Kit is an Enzyme Immunoassay kit for the quantification of Bovine TNF alpha in serum and plasma.
Tested Reactivity	Bov
Tested Application	ELISA
Specificity	The following recombinant bovine proteins were tested and exhibited no cross-reactivity or interference: BMP1, BMP2, BMP4, HGF, IL-1 beta, IL-1RA, IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12, IL-15, IFN gamma, MMP-2, TGF beta1, TGF beta2, TGF beta3, TLR1, TLR2, TLR3, VEGF.
Target Name	TNF alpha
Conjugation	HRP
Conjugation Note	Read at 450 nm.
Sensitivity	16 pg/ml
Sample Type	Serum and plasma.
Standard Range	31 - 2000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 6% Inter-Assay CV: 8%
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	~ 3 hours
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°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
Function	Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. 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). Key mediator of cell death in the anticancer action of BCG-stimulated neutrophils in combination with DIABLO/SMAC mimetic in the RT4v6 bladder cancer cell line (PubMed:22517918, PubMed:16829952, PubMed:23396208). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity).

The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. [UniProt]

Highlight

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New ELISA data calculation tool:

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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.

[UniProt]

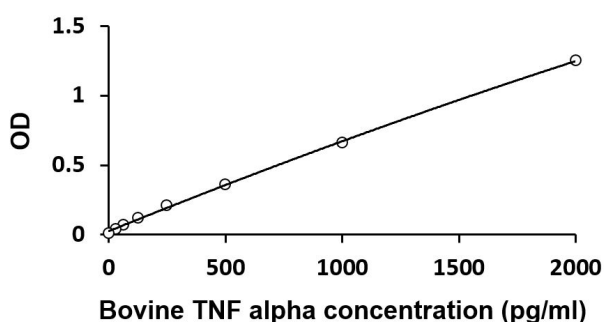
Cellular Localization

Cell membrane; Single-pass type II membrane protein. Tumor necrosis factor, membrane form:

Membrane; Single-pass type II membrane protein. Tumor necrosis factor, soluble form: Secreted. C-

domain 1: Secreted. C-domain 2: Secreted. [UniProt]

Images



ARG82687 Bovine TNF alpha ELISA Kit standard curve image

ARG82687 Bovine TNF alpha ELISA Kit results of a typical standard run with optical density reading at 450 nm.