

# Pig Tumor necrosis factor $\alpha$ (TNF- $\alpha$ ) ELISA Kit

Catalog No: #EK6191

Package Size: #EK6191-1 48T #EK6191-2 96T

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## Description

Product Name	Pig Tumor necrosis factor $\alpha$ (TNF- $\alpha$ ) ELISA Kit
Applications	ELISA
Species Reactivity	Pig ( <i>Sus scrofa</i> ; Porcine)
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

## Application Details

Detect Range:15.6-1000 pg/mL

Sensitivity:6.1 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200  $\mu$ L

Assay Time:1-4.5h

Detection wavelength:450 nm

## Product Description

**Detection Method:**SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate TNF- $\alpha$  in samples. An antibody specific for TNF- $\alpha$  has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyTNF- $\alpha$  present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for TNF- $\alpha$  is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of TNF- $\alpha$  bound in the initial step. The color development is stopped and the intensity of the color is measured.

**Product Overview:**TNF $\alpha$  is synthesized as a 26 kDa, type II transmembrane protein that is 233 amino acids in length. It contains a 30 amino acid (aa) cytoplasmic domain, a 26 aa transmembrane segment, and a 177 aa extracellular region. TNF $\alpha$  is assembled intracellularly to form a transmembrane, non-covalently-linked homotrimeric protein. The 157 aa residue soluble form of TNF $\alpha$  (sTNF- $\alpha$ ) is released from the C-terminus of the transmembrane protein through the activity of TNF $\alpha$ -converting enzyme (TACE), a membrane -bound disintegrin metalloproteinase. Rat cells known to express TNF- $\alpha$ include B cells, colonic columnar epithelial cells, NK and CD3 CD56 hepatic natural T cells, macrophages, monocytes and monocyte-derived dendritic cells, CD4 and CD8 T cells, mast cells, neutrophils, keratinocytes, plasma cells, and adipocytes.

## Published Papers

Zhenzhen Zhang;Xiuzhen Mei;Hui Wang;Hanfei Gong;Rong Chen;Beibei Liu;Yanna Wei;Yuan Gan;Ting Yuan;Yuzi Wu;Guoqing Shao;Qiyao Xiong;Chao Zhang;Zhixin Feng et al., Long non-coding RNA MMTP mediates necroptosis in alveolar macrophages during Mycoplasma hyopneumoniae infection by enhancing TNF- $\alpha$  transcription., , (2025)

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.