

Datasheet for ABIN411381

LTA ELISA Kit[Go to Product page](#)**1** Image**2** Publications

Overview

Quantity:	96 tests
Target:	LTA
Binding Specificity:	AA 35-205
Reactivity:	Chemical
Method Type:	Sandwich ELISA
Detection Range:	62.5-4000 pg/mL
Minimum Detection Limit:	62.5 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human TNF beta
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: L35-L205
Specificity:	Expression system for standard: E.coli Immunogen sequence: L35-L205
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<5pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl

Target Details

Target:	LTA
Alternative Name:	LTA (LTA Products)
Target Type:	Chemical
Background:	<p>Protein Function: Cytokine that in its homotrimeric form binds to TNFRSF1A/TNFR1, TNFRSF1B/TNFR1 and TNFRSF14/HVEM. In its heterotrimeric form with LTB binds to TNFRSF3/LTBR. Lymphotoxin is produced by lymphocytes and cytotoxic for a wide range of tumor cells in vitro and in vivo.</p> <p>Background: Tumor necrosis factor-beta(TNF-beta), previously called lymphotoxin-alpha(LTA), is a cytokine produced by lymphocytes. TNF-alpha and TNF-beta share 35 % identity and 50 % homology in the amino acid sequence. The substance LTA mediates a wide variety of inflammatory, immunostimulatory, and antiviral responses. LTA is associated with susceptibility to myocardial infarction, asthma and other diseases. The LTA gene is located on human chromosome 6. The standard product used in this kit is recombinant protein, consisting of 172 amino acids with the molecular mass of 18.8KDa.</p> <p>Synonyms: Lymphotoxin-alpha,LT-alpha,TNF-beta,Tumor necrosis factor ligand superfamily member 1,LTA,TNFB, TNFSF1,</p> <p>Full Gene Name: Lymphotoxin-alpha</p> <p>Cellular Localisation: Secreted. Membrane. The homotrimer is secreted. The heterotrimer is membrane-associated.</p>
Gene ID:	4049
UniProt:	P01374
Pathways:	Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well
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Application Details

	assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the tumor necrosis factor family.
Plate:	Pre-coated
Protocol:	human TNF beta ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for TNF beta has been precoated onto 96-well plates. Standards(E.coli, L35-L205) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TNF beta is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human TNF beta amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 4000pg/mL, 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL human TNF beta standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum or plasma(heparin, EDTA, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human TNF beta standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 415, Standard deviation: 23.24, CV(%): 5.6• Sample 2: n=16, Mean(pg/ml): 1952, Standard deviation: 68.32, CV(%): 3.5• Sample 3: n=16, Mean(pg/ml): 2822, Standard deviation: 129.8, CV(%): 4.6,• Sample 1: n=24, Mean(pg/ml): 660, Standard deviation: 40.92, CV(%): 6.2• Sample 2: n=24, Mean(pg/ml): 2546, Standard deviation: 122.2, CV(%): 4.8• Sample 3: n=24, Mean(pg/ml): 3148, Standard deviation: 210.9, CV(%): 6.7
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in: Fernández, Baldassarro, Sivilia, Giardino, Calzà: "Inflammation severely alters thyroid hormone signaling in the central nervous system during experimental allergic encephalomyelitis in rat: Direct impact on OPCs differentiation failure." in: **Glia**, Vol. 64, Issue 9, pp. 1573-89, (2016) ([PubMed](#)).

Vidart, Wajner, Leite, Manica, Schaan, Larsen, Maia: "N-acetylcysteine administration prevents nonthyroidal illness syndrome in patients with acute myocardial infarction: a randomized clinical trial." in: **The Journal of clinical endocrinology and metabolism**, Vol. 99, Issue 12, pp. 4537-45, (2014) ([PubMed](#)).

Images

