Datasheet for ABIN411315
Interleukin 17a ELISA Kit

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Overview

Quantity:	96 tests
Target:	Interleukin 17a (IL17A)
Binding Specificity:	AA 22-158
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse IL-17
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: E.coli Immunogen sequence: T22-A158
Specificity:	Expression system for standard: E.coli Immunogen sequence: T22-A158
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<1pg/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:	Interleukin 17a (IL17A)
Alternative Name:	IL17A (IL17A Products)
Background:	Background: IL-17 is an inflammatory cytokine produced primarily by a unique lineage of CD4 T cells that plays critical roles in the pathogenesis of multiple autoimmune diseases. Interleukin-17 is expressed by activated T cells and is 57 % identical to the 17- to 26-kD secretory glycoprotein encoded by gene 13 of the herpesvirus saimiri(HVS-13). IL17 induces nuclear factor kappa-B and the expression of IL6, intercellular adhesion molecule-1, granulocyte macrophage colony-stimulating factor,and prostaglandin E2, as well as the maturation of CD34 positive hematopoietic precursors into neutrophils. Anti-IL17 antibodies significantly inhibited osteoclast formation induced by culture media of RA synovial tissues. The standard product used in this kit is recombinant mouse IL-17, consisting of 137 amino acids with the molecular mass of 15.5KDa. Synonyms: Interleukin 17A ,Il17a ,Il17 ,mCG_7914 , Full Gene Name: interleukin 17A
Gene ID:	16171
UniProt:	Q544E6

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Plate:	Pre-coated
Protocol:	mouse IL-17 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for IL-17 has been precoated onto 96-well plates. Standards(E.coli, T22-A158) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-17 is added subsequently and then

Application Details

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 mouse IL-17 amount of sample captured in plate.

Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL mouse IL-17 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 mouse cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse IL-17 standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 83, Standard deviation: 3.82, CV(%): 4.6
- Sample 2: n=16, Mean(pg/ml): 372, Standard deviation: 20.46, CV(%): 5.5
- Sample 3: n=16, Mean(pg/ml): 623, Standard deviation: 37.38, CV(%): 6,
- Sample 1: n=24, Mean(pg/ml): 103, Standard deviation: 5.46, CV(%): 5.3
- Sample 2: n=24, Mean(pg/ml): 418, Standard deviation: 25.92, CV(%): 6.2
- Sample 3: n=24, Mean(pg/ml): 737, Standard deviation: 50.12, CV(%): 6.8

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: Zhang, Ju, Nie, Song, Xu, Gao: "Adenovirus-mediated knockdown of activin A receptor type 2A attenuates immune-induced hepatic fibrosis in mice and inhibits interleukin-17-induced activation of primary hepatic stellate cells." in: **International journal of molecular medicine**, Vol. 42, Issue 1, pp. 279-289, (2018) (PubMed).

Wang, Zhang, Wang, Gadahi, Xu, Yan, Song, Li: "Toxoplasma gondii Elongation Factor 1-Alpha (TgEF-1α) Is a Novel Vaccine Candidate Antigen against Toxoplasmosis." in: **Frontiers in**
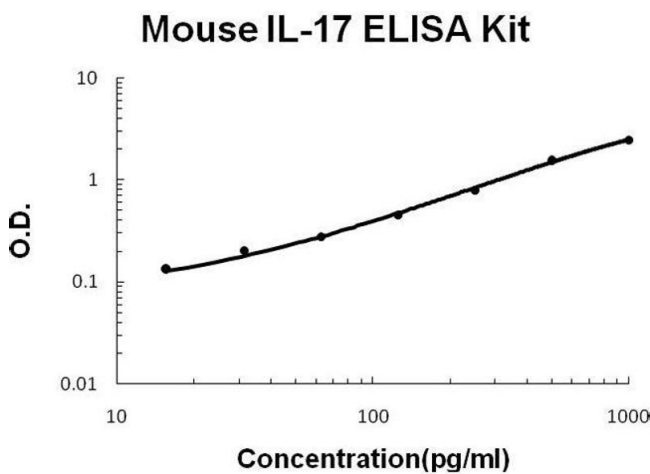
Publications

microbiology, Vol. 8, pp. 168, (2017) (PubMed).

Qu, Zhang, Cai, Li, Ma, Xu, Lu: "Exosomes derived from miR-181-5p-modified adipose-derived mesenchymal stem cells prevent liver fibrosis via autophagy activation." in: **Journal of cellular and molecular medicine**, (2017) (PubMed).

Wang, Zhang, Xi, Huang, Nie, Zhou, Deng, Tao: "Establishment of a mouse model of lipopolysaccharide-induced neutrophilic nasal polyps." in: **Experimental and therapeutic medicine**, Vol. 14, Issue 6, pp. 5275-5282, (2017) (PubMed).

Wang, Su, Dong, Shi, Gao, Wang: "Hybrid phage displaying SLAQVKYTSASSI induces protection against Candida albicans challenge in BALB/c mice." in: **Human vaccines & immunotherapeutics**, Vol. 10, Issue 4, pp. 1057-63, (2016) (PubMed).

There are more publications referencing this product on: Product page

Images

ELISA

Image 1. Mouse IL-17 PicoKine ELISA Kit standard curve