Datasheet for ABIN411383

IL-18 ELISA Kit

1 Image | 7 Publications

Go to Product page

Overview

Quantity:	96 tests
Target:	IL-18 (IL18)
Binding Specificity:	AA 37-194
Reactivity:	Rat
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 Rat IL-18
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: H37-S194
Specificity:	Expression system for standard: E.coli Immunogen sequence: H37-S194
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:	IL-18 (IL18)
Alternative Name:	IL18 (IL18 Products)
Background:	Protein Function: Augments natural killer cell activity in spleen cells and stimulates interferon gamma production in T-helper type I cells. Background: Interleukin(IL)-18, also called Interferon-gamma-inducing factor(IGIF), augments natural killer(NK) activity in spleen cells. The gene encodes a precursor protein of 192 amino acids and a mature protein of 157 amino acids.1 IL-18 is a recently discovered cytokine that modulates both T helper type 1(Th1) and Th2 responses.2 IL-18 is a potent proinflammatory cytokine with potential atherogenic properties. It is highly expressed in the atherosclerotic plaques compared with control normal arteries and is localized mainly in plaque macrophages.3 Synonyms: Interleukin-18,IL-18,Interferon gamma-inducing factor,IFN-gamma-inducing factor,Interleukin-1 gamma,IL-1 gamma,Il18,Igif, Full Gene Name: Interleukin-18 Cellular Localisation: Secreted.
Gene ID:	29197
UniProt:	P97636
Pathways:	Cellular Response to Molecule of Bacterial Origin, Activated T Cell Proliferation, Cancer Immune Checkpoints, Inflammasome

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:	rat IL-18 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay

Application Details

	technology. A monoclonal antibody from mouse specific for IL-18 has been precoated onto 96-well plates. Standards(E.coli, H37-S194) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-18 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 rat IL-18 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 rat IL-18 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 rat cell culture supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each rat IL-18 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 126, Standard deviation: 6, CV(%): 4.7 • Sample 2: n=16, Mean(pg/ml): 335, Standard deviation: 19.43, CV(%): 5.8 • Sample 3: n=16, Mean(pg/ml): 592, Standard deviation: 36.7, CV(%): 6.2, • Sample 1: n=24, Mean(pg/ml): 147, Standard deviation: 7.94, CV(%): 5.4 • Sample 2: n=24, Mean(pg/ml): 392, Standard deviation: 24.7, CV(%): 6.3 • Sample 3: n=24, Mean(pg/ml): 644, Standard deviation: 46.4, CV(%): 7.2
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:	Rubiś, Wiśniowska-Smiałek, Wypasek, Rudnicka-Sosin, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Podolec et al.: "12-month patterns of serum markers of collagen synthesis, transforming growth factor and connective tissue growth factor are similar in new-onset and chronic dilated cardiomyopathy in patients both ..." in: **Cytokine**, Vol. 96, pp. 217-227, (2018) (PubMed).

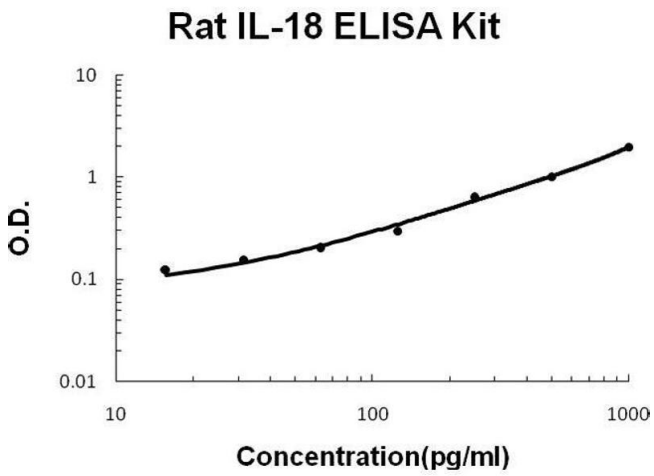
Xie, Liao, Yu, Guo, Yang, Ge, Chen, Chen: "Endothelial-to-mesenchymal transition in human idiopathic dilated cardiomyopathy." in: **Molecular medicine reports**, Vol. 17, Issue 1, pp. 961-969, (2018) (PubMed).

Rubiś, Wiśniowska-Śmiałek, Dziewięcka, Rudnicka-Sosin, Kozanecki, Podolec: "Prognostic value of fibrosis-related markers in dilated cardiomyopathy: A link between osteopontin and cardiovascular events." in: **Advances in medical sciences**, Vol. 63, Issue 1, pp. 160-166, (2018) (PubMed).

Rubiś, Wiśniowska-Śmialek, Wypasek, Biernacka-Fijalkowska, Rudnicka-Sosin, Dziewiecka, Faltyn, Khachatryan, Karabinowska, Kozanecki, Tomkiewicz-Pająk, Podolec: "Fibrosis of extracellular matrix is related to the duration of the disease but is unrelated to the dynamics of collagen metabolism in dilated cardiomyopathy." in: **Inflammation research : official journal of the European Histamine Research Society ... [et al.]**, Vol. 65, Issue 12, pp. 941-949, (2016) (PubMed).

Rubiś, Wiśniowska-Śmiałek, Biernacka-Fijałkowska, Rudnicka-Sosin, Wypasek, Kozanecki, Dziewięcka, Faltyn, Karabinowska, Khachatryan, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Płazak, Podolec: "Left ventricular reverse remodeling is not related to biopsy-detected extracellular matrix fibrosis and serum markers of fibrosis in dilated cardiomyopathy, regardless of the definition used for LVRR." in: **Heart and vessels**, Vol. 32, Issue 6, pp. 714-725, (2016) (PubMed).

There are more publications referencing this product on: Product page



ELISA

Image 1. Rat IL-18 PicoKine ELISA Kit standard curve