Datasheet for ABIN1672738

IL16 ELISA Kit

1 Image | 3 Publications

Go to Product page

Overview

Quantity:	96 tests
Target:	IL16
Binding Specificity:	AA 2-130
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human IL-16
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: P2-S130
Specificity:	Expression system for standard: E.coli Immunogen sequence: P2-S130
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/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:	IL16
Alternative Name:	IL16 (IL16 Products)
Background:	Protein Function: Interleukin-16 stimulates a migratory response in CD4+ lymphocytes, monocytes, and eosinophils. Primes CD4+ T-cells for IL-2 and IL-15 responsiveness. Also induces T-lymphocyte expression of interleukin 2 receptor. Ligand for CD4. Background: Interleukin 16(IL-16) is a cytokine that released by a variety of cells(including lymphocytes and some epithelial cells) that has been characterized as a chemoattractant for certain immune cells expressing the cell surface molecule CD4. By Southern blot analysis and PCR using a human/rodent somatic cell hybrid mapping panel, The human IL16 is encoded by a single-copy gene on chromosome 15. Using a combination of STS-content mapping, radiation-hybrid mapping, and genetic mapping, it was refined the assignment to 15q26.1. The mouse Il16 gene was mapped to chromosome 7 in a region showing homology of synteny to human 15q26.1. IL-16 was originally described as a factor that could attract activated T cells in humans, it was previously called lymphocyte chemoattractant factor(LCF), and the augmentation of IL16stimulation by CCR5 plays a role in regulation of Th1 cell recruitment and activation at sites of inflammation. Synonyms: Pro-interleukin-16,Interleukin-16,IL-16,Lymphocyte chemoattractant factor,LCF,IL16, Full Gene Name: Pro-interleukin-16 Cellular Localisation: Interleukin-16: Secreted.
Gene ID:	3603
UniProt:	Q14005

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.
Comment:	Sequence similarities: Contains 4 PDZ (DHR) domains.

Application Details

	Tissue Specificity: Isoform 3 is expressed in hemopoietic tissues, such as resting T-cells, but is undetectable during active T-cell proliferation.
Plate:	Pre-coated
Protocol:	human IL-16 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for IL-16 has been precoated onto 96-well plates. Standards(E.coli, P2-S130) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for IL-16 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 IL-16 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL, 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human IL-16 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 and plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human IL-16 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 255, Standard deviation: 13.52, CV(%): 5.3 • Sample 2: n=16, Mean(pg/ml): 810, Standard deviation: 48.6, CV(%): 6 • Sample 3: n=16, Mean(pg/ml): 1389, Standard deviation: 68.1, CV(%): 4.9, • Sample 1: n=24, Mean(pg/ml): 292, Standard deviation: 19.86, CV(%): 6.8 • Sample 2: n=24, Mean(pg/ml): 735, Standard deviation: 54.39, CV(%): 7.4 • Sample 3: n=24, Mean(pg/ml): 1447, Standard deviation: 82.48, CV(%): 5.7
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:

Song, Kong, Acosta, Sava, Borlongan, Sanchez-Ramos: "Granulocyte colony-stimulating factor promotes behavioral recovery in a mouse model of traumatic brain injury." in: **Journal of neuroscience research**, Vol. 94, Issue 5, pp. 409-23, (2016) (PubMed).

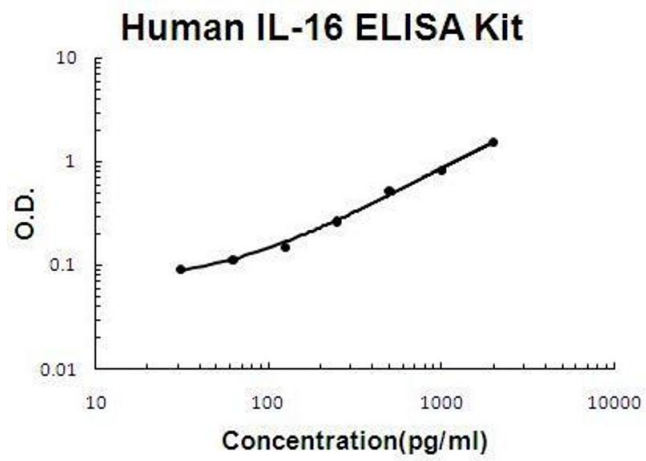
Banerjee, Nürnberger, Hennerbichler, Riedl, Schuh, Hacobian, Teuschl, Eibl, Redl, Wolbank: "In toto differentiation of human amniotic membrane towards the Schwann cell lineage." in: **Cell and tissue banking**, Vol. 15, Issue 2, pp. 227-39, (2014) (PubMed).

Liu, Wang, Shao, Liu: "Genetically modified Schwann cells producing glial cell line-derived neurotrophic factor inhibit neuronal apoptosis in rat spinal cord injury." in: **Molecular medicine reports**, Vol. 9, Issue 4, pp. 1305-12, (2014) (PubMed).

Chai, Guo, Li, Wang, Wang, Shi, Hu, Liu, Adah: "Scutellarin and caffeic acid ester fraction, active components of Dengzhanxixin injection, upregulate neurotrophins synthesis and release in hypoxia/reoxygenation rat astrocytes." in: **Journal of ethnopharmacology**, Vol. 150, Issue 1, pp. 100-7, (2013) (PubMed).

Yang, Zhou, Gao, Chen, Tu, Sun, Liu, He, Liu, Yuan: "Neuroprotective effects of bone marrow stem cells overexpressing glial cell line-derived neurotrophic factor on rats with intracerebral hemorrhage and neurons exposed to hypoxia/reoxygenation." in: **Neurosurgery**, Vol. 68, Issue 3, pp. 691-704, (2011) (PubMed).

Images



ELISA

Image 1. Human IL-16 PicoKine ELISA Kit standard curve