Datasheet for ABIN2859287

CXCL2 ELISA Kit

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Overview

Quantity:	96 tests
Target:	CXCL2
Binding Specificity:	AA 32-100
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 CXCL2/MIP-2
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: S32-N100
Specificity:	E.coli, S32-N100
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

Product Details

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:	CXCL2
Alternative Name:	CXCL2 (CXCL2 Products)
Background:	Protein Function: Chemotactic for human polymorphonuclear leukocytes but does not induce chemokinesis or an oxidative burst. Contributes to neutrophil activation during inflammation. Background: MIP is a member of the aquaporin family of membrane-bound water channels. MIP family proteins are thought to contain 6 TM domains. Sequence analysis suggests that the proteins may have arisen through tandem, intragenic duplication from an ancestral protein that contained 3 TM domains. Major intrinsic protein (MIP, also called MP26) is the predominant fiber cell membrane protein of the ocular lens. The major intrinsic protein (MIP) of the vertebrate eye lens is the first identified member of a sequence-related family of cell-membrane proteins that appears to have evolved by gene duplication. Several members of the MIP family transport water (aquaporins), glycerol and other small molecules in microbial, plant and animal cells. Synonyms: C-X-C motif chemokine 2,Cytokine-induced neutrophil chemoattractant 3,CINC-3,Macrophage inflammatory protein 2,MIP2,Cxcl2,Cinc3, Mip-2, Mip2, Scyb2, Full Gene Name: C-X-C motif chemokine 2 Cellular Localisation: Secreted.
Gene ID:	114105
UniProt:	P30348
Pathways:	Cellular Response to Molecule of Bacterial Origin

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:	Tissue Specificity: At least expressed in the lung and trachea.
Plate:	Pre-coated

Application Details

Protocol:	rat MIP-2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for MIP-2 has been precoated onto 96-well plates. Standards (E.coli, S32-N100) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for MIP-2 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 MIP-2 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 MIP-2 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 MIP-2 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 113, Standard deviation: 4.97, CV(%): 4.4 • Sample 2: n=16, Mean(pg/ml): 355, Standard deviation: 18.46, CV(%): 5.2 • Sample 3: n=16, Mean(pg/ml): 627, Standard deviation: 25.73, CV(%): 5.7, • Sample 1: n=24, Mean(pg/ml): 134, Standard deviation: 6.96, CV(%): 5.2 • Sample 2: n=24, Mean(pg/ml): 387, Standard deviation: 21.28, CV(%): 5.5 • Sample 3: n=24, Mean(pg/ml): 653, Standard deviation: 39.18, CV(%): 6.0
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

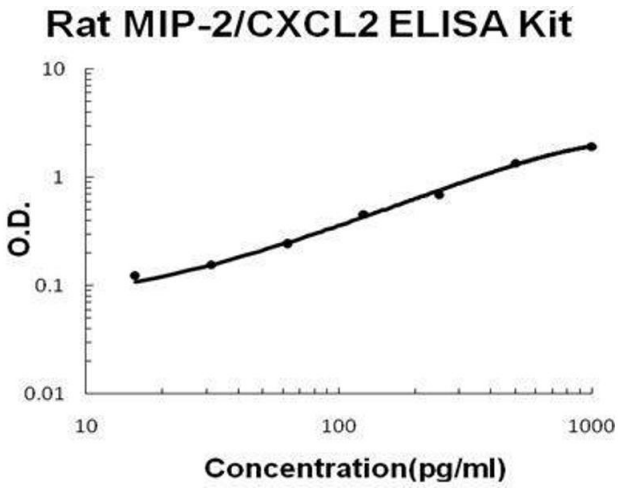
Publications

Product cited in:	Zhu, He, Liu, Zhang, Yang, Liu, Wang: "Alpha 1-antitrypsin ameliorates ventilator-induced lung injury in rats by inhibiting inflammatory responses and apoptosis." in: **Experimental biology and medicine (Maywood, N.J.)**, Vol. 243, Issue 1, pp. 87-95, (2018) (PubMed).

Publications

Mei, Wang, Li, Liu, Lu, Li, Zhang, Tian: "Dusuqing granules (DSQ) suppress inflammation in Klebsiella pneumonia rat via NF-κB/MAPK signaling." in: **BMC complementary and alternative medicine**, Vol. 17, Issue 1, pp. 216, (2017) (PubMed).

Images



ELISA

Image 1. Rat CXCL2 PicoKine ELISA Kit standard curve