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CCL5 ELISA Kit





Publications



Overview

Quantity:	96 tests
Target:	CCL5
Binding Specificity:	AA 24-91
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 Rantes
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: S24-S91
Specificity:	Expression system for standard: E.coli
	Immunogen sequence: S24-S91
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:	CCL5
Alternative Name:	CCL5 (CCL5 Products)
Background:	Protein Function: Chemoattractant for blood monocytes, memory T-helper cells and eosinophils. Causes the release of histamine from basophils and activates eosinophils. May activate several chemokine receptors including CCR1, CCR3, CCR4 and CCR5. May also be an agonist of the G protein-coupled receptor GPR75. Together with GPR75, may play a role in neuron survival through activation of a downstream signaling pathway involving the PI3, Akt and MAP kinases. By activating GPR75 may also play a role in insulin secretion by islet cells Background: Rantes(regulated on activation normal T cell expressed and secreted) is one of the natural ligands for the chemokine receptor CCR5 and potently suppresses in vitro replication of the R5 strains of HIV-1, which use CCR5 as a coreceptor. Peripheral blood mononuclear cells or CD4(+) lymphocytes obtained from different individuals have wide variations in their ability to secrete RANTES. The Rantes gene product is predicted to be 10 kDa and, after cleavage of the signal peptide, approximately 8 kDa. Of the 68 residues, 4 are cysteines, and there are no sites for N-linked glycosylation. Rantes is expressed by cultured T cell lines that are Ag specific and growth factor dependent. Synonyms: C-C motif chemokine 5,MuRantes,SIS-delta,Small-inducible cytokine A5,T-cell-specific protein RANTES,Ccl5,Scya5, Full Gene Name: C-C motif chemokine 5 Cellular Localisation: Secreted.
Gene ID:	20304
UniProt:	P30882
Pathways:	Cellular Response to Molecule of Bacterial Origin, Regulation of G-Protein Coupled Receptor Protein Signaling, Smooth Muscle Cell Migration

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: T-cell and macrophage specific.
Plate:	Pre-coated
Protocol:	mouse Rantes ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for Rantes has been precoated onto 96-well plates. Standards(E.coli, S24-S91) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Rantes 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
Assay Procedure:	yellow is proportional to the mouse Rantes amount of sample captured in plate. 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 Rantes 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, citrate) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse Rantes standard solution and each sample be measured in duplicate.
Assay Precision:	 Sample 1: n=16, Mean(pg/ml): 127, Standard deviation: 6.73, CV(%): 5.3 Sample 2: n=16, Mean(pg/ml): 285, Standard deviation: 18.24, CV(%): 6.4 Sample 3: n=16, Mean(pg/ml): 498, Standard deviation: 35.9, CV(%): 7.2, Sample 1: n=24, Mean(pg/ml): 146, Standard deviation: 12.12, CV(%): 8.3 Sample 2: n=24, Mean(pg/ml): 312, Standard deviation: 21.22, CV(%): 6.8 Sample 3: n=24, Mean(pg/ml): 587, Standard deviation: 47.55, CV(%): 8.1
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

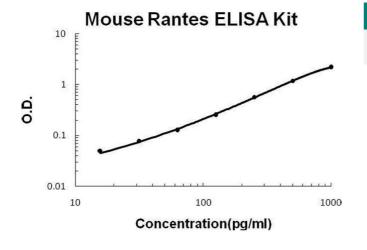
Product cited in:

Meng, Zhang, Wu, Wu, Li, Yan, Kopec-Harding, Wu: "In vitro modeling of COPD inflammation and limitation of p38 inhibitor - SB203580." in: **International journal of chronic obstructive pulmonary disease**, Vol. 11, pp. 909-17, (2017) (PubMed).

Zhang, Zheng, Liu, Shu, Mao, Bai, Hu, Luo, Ma, Cui, Wang: "Tick-borne encephalitis virus induces chemokine RANTES expression via activation of IRF-3 pathway." in: **Journal of neuroinflammation**, Vol. 13, Issue 1, pp. 209, (2017) (PubMed).

Liu, An, Liu, Li, Tang, Chen: "Mouse lung slices: An ex vivo model for the evaluation of antiviral and anti-inflammatory agents against influenza viruses." in: **Antiviral research**, Vol. 120, pp. 101-11, (2015) (PubMed).

Images



ELISA

Image 1. Mouse Rantes PicoKine ELISA Kit standard curve