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Datasheet for ABIN411348

CCL5 ELISA Kit

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Overview

| | |
|--------------------------|-----------------|
| Quantity: | 96 tests |
| Target: | CCL5 |
| Binding Specificity: | AA 24-91 |
| Reactivity: | Human |
| 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 Human Rantes |
| Brand: | PicoKine™ |
| Sample Type: | Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate), Urine |
| 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: <3pg/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: 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 ,CCL5 ,hCG_32592 ,

Full Gene Name: C-C motif chemokine

Cellular Localisation: Secreted.

Gene ID: 6352

UniProt: [D0E167](#)

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.

Plate: Pre-coated

Protocol: human Rantes ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Rantes has been precoated onto 96-well plates. Standards(E.coli, S24-S91) and test samples are added to the wells, a

Application Details

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 yellow is proportional to the human Rantes 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 human 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 human cell culture supernates, serum, plasma (heparin, EDTA, citrate) or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Rantes standard solution and each sample be measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 147, Standard deviation: 5.88, CV(%): 4
- Sample 2: n=16, Mean(pg/ml): 293, Standard deviation: 15.53, CV(%): 5.3
- Sample 3: n=16, Mean(pg/ml): 501, Standard deviation: 31.1, CV(%): 6.2,
- Sample 1: n=24, Mean(pg/ml): 110, Standard deviation: 8.14, CV(%): 7.4
- Sample 2: n=24, Mean(pg/ml): 339, Standard deviation: 24.41, CV(%): 7.2
- Sample 3: n=24, Mean(pg/ml): 658, Standard deviation: 56.6, CV(%): 8.6

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

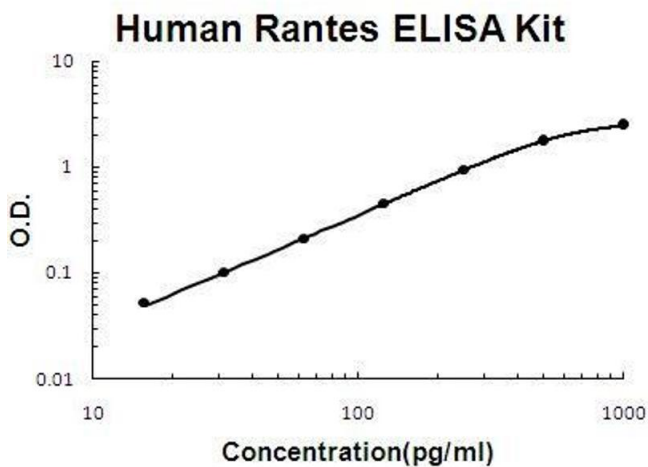
Product cited in: Zhong, Tong, Li, Yuan, Hu, Hu, Song: "Mesenchymal stem cells in inflammatory microenvironment potently promote metastatic growth of cholangiocarcinoma via activating Akt/NF-κB signaling by paracrine CCL5." in: **Oncotarget**, Vol. 8, Issue 43, pp. 73693-73704, (2017) ([PubMed](#)).

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](#)).

Zhao, Bu, Wang, Ma, Ma: "GEC-derived SFRP5 inhibits Wnt5a-induced macrophage chemotaxis and activation." in: **PLoS ONE**, Vol. 9, Issue 1, pp. e85058, (2014) ([PubMed](#)).

Li, Luo, Fan, Sun: "Dynamic changes in serum monocyte chemoattractant protein-1, and regulated upon activation, normal T cell expressed and secreted levels in patients with minor intracerebral hemorrhage." in: **Neurosciences (Riyadh, Saudi Arabia)**, Vol. 17, Issue 4, pp. 314-20, (2012) ([PubMed](#)).

Images



ELISA
Image 1. Human Rantes PicoKine ELISA Kit standard curve