

## Guinea Pig chemokine (C-C motif) ligand 2 ELISA Kit | CCL2 elisa kit

Guinea Pig monocyte chemotactic protein 1, MCP1 ELISA Kit

CATALOG #  
**AAA79752**

REACTIVITY  
**Guinea Pig**

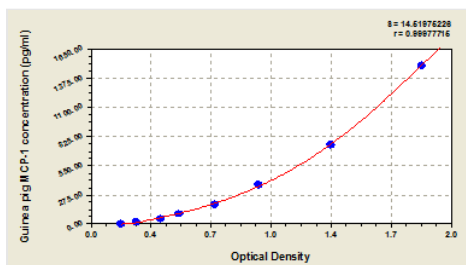
### PRODUCT SYNONYMS

chemokine (C-C motif) ligand 2; Guinea Pig monocyte chemotactic protein 1; MCP1 ELISA Kit; Guinea pig monocyte chemotactic protein 1; GDCF-2; HC11; HSMCR30; MCAF; MCP-1; MCP1; MGC9434; SCYA2; SMC-CF; monocyte chemoattractant protein-1; monocyte chemotactic and activating factor; monocyte secretory protein JE; small inducible cytokine; CCL2 elisa kit

### PRODUCT SPECIFICATIONS

|                              |                                                                                                                                                                                                                                                                                                                           |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                   | Guinea Pig                                                                                                                                                                                                                                                                                                                |
| Specificity                  | This assay has high sensitivity and excellent specificity for detection of Guinea pig CCL2. No significant cross-reactivity or interference between Guinea pig CCL2 and analogues was observed.                                                                                                                           |
| Sequence Length              | 120                                                                                                                                                                                                                                                                                                                       |
| Samples                      | Serum, plasma, tissue homogenates                                                                                                                                                                                                                                                                                         |
| Detection Range              | 23.5 pg/ml-1500 pg/ml                                                                                                                                                                                                                                                                                                     |
| Sensitivity                  | 5.8 pg/ml                                                                                                                                                                                                                                                                                                                 |
| Intra-assay Precision        | Intra-assay Precision (Precision within an assay): CV% is less than 8%<br>Three samples of known concentration were tested twenty times on one plate to assess.<br>Inter-assay Precision (Precision between assays): CV% is less than 10%<br>Three samples of known concentration were tested in twenty assays to assess. |
| Detection Wavelength         | 450 nm                                                                                                                                                                                                                                                                                                                    |
| Sample Volume                | 50-100ul                                                                                                                                                                                                                                                                                                                  |
| Protein Biological Process 1 | Immunity                                                                                                                                                                                                                                                                                                                  |
| Protein Biological Process 2 | chemokine                                                                                                                                                                                                                                                                                                                 |
| Protein Biological Process 3 | Chemotaxis                                                                                                                                                                                                                                                                                                                |
| Preparation and Storage      | Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.                                                                                                                                                                                         |

### IMAGES



Standard Curve (Sample)

## ADDITIONAL INFORMATION

### Related Product Information for CCL2 elisa kit

**Introduction:** Chemokine (C-C motif) ligand 2 (MCP-1) is a small cytokine belonging to the CC chemokine family that is also known as monocyte chemotactic protein-1 (MCP-1). MCP-1 recruits monocytes, memory T cells, and dendritic cells to sites of tissue injury and infection. This chemokine is produced as a protein precursor containing signal peptide of 23 amino acids and a mature peptide of 76 amino acids. It is a monomeric polypeptide, with a molecular weight of approximately 13kDa. As with many other CC chemokines, MCP-1 is located on chromosome 17 in humans. The cell surface receptors that bind MCP-1 are CCR2 and CCR4. It is found at the site of tooth eruption and bone degradation. In the bone, MCP-1 is expressed by mature osteoclasts and osteoblasts and is under the control of nuclear factor kappaB (NFkappaB). In human osteoclasts, it has been shown that MCP-1 and RANTES (regulated on activation normal T cell expressed and secreted) are unregulated by RANKL (receptor activator of NFkappaB ligand). Both MCP-1 and RANTES were also shown to induce the formation of TRAP-positive, multinuclear cells from M-CSF-treated monocytes in the absence of RANKL, but produced osteoclasts that lacked cathepsin K expression and resorptive capacity. It is proposed that MCP-1 and RANTES act as autocrine loop in human osteoclast differentiation. MCP-1 causes the degranulation of basophils and mast cells, an effect potentiated by pre-treatment with IL-3 and other cytokines.

**Principle of the Assay:** The microtiter plate provided in this kit has been pre-coated with an antibody specific to MCP-1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific for MCP-1 and Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. Then a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain MCP-1, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The concentration of MCP-1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.

## NCBI AND UNIPROT INFORMATION

|                               |                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                     | 290543400                                                                                                                                                  |
| NCBI GeneID                   | 100135494                                                                                                                                                  |
| NCBI Accession #              | NP_001166397.1                                                                                                                                             |
| NCBI GenBank Nucleotide #     | NM_001172926.1                                                                                                                                             |
| UniProt Accession #           | Q08782                                                                                                                                                     |
| Molecular Weight              | 13,741 Da                                                                                                                                                  |
| NCBI Official Full Name       | C-C motif chemokine 2                                                                                                                                      |
| NCBI Official Symbol          | Ccl2                                                                                                                                                       |
| NCBI Official Synonym Symbols | MCP1; MCP-1; SCYA2                                                                                                                                         |
| NCBI Protein Information      | C-C motif chemokine 2; small-inducible cytokine A2; monocyte chemotactic protein 1; monocyte chemoattractant protein 1; monocyte chemoattractant protein-1 |
| UniProt Protein Name          | C-C motif chemokine 2                                                                                                                                      |
| UniProt Gene Name             | <b>CCL2</b>                                                                                                                                                |
| UniProt Synonym Gene Names    | MCP1; SCYA2; MCP-1                                                                                                                                         |
| UniProt Entry Name            | CCL2_CAVPO                                                                                                                                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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