

## ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10)

Package: 96 wells

Store at: 4°C, -20°C, -80°C

### Summary

Product Description	ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) is an Enzyme Immunoassay kit for the quantification of Human Inflammatory Chemokine in serum, plasma and cell culture supernatants.  <a href="#">See all Multiplex ELISA kits</a>
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Inflammatory Chemokine
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	MCP1: 15.625 pg/ml RANTES: 15.625 pg/ml IL8: 15.625 pg/ml IP10: 31.25 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	MCP1: 31.25-1000 pg/ml RANTES: 31.25-1000 pg/ml IL8: 31.25-1000 pg/ml IP10: 62.5-2000 pg/ml
Sample Volume	25 µl

### Application Instructions

Assay Time	4 hours
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### Properties

Form	96 well
Storage instruction	Store the kit at 4°C, -20°C, -80°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

Gene Symbol	CCL2; CCL5; CXCL8; CXCL10
Gene Full Name	C-C Motif Chemokine Ligand 2; C-C Motif Chemokine Ligand 5; C-X-C Motif Chemokine Ligand 8; C-X-C Motif Chemokine Ligand 10

## Background

**MCP1:**This gene is one of several cytokine genes clustered on the q-arm of chromosome 17. Chemokines are a superfamily of secreted proteins involved in immunoregulatory and inflammatory processes. The superfamily is divided into four subfamilies based on the arrangement of N-terminal cysteine residues of the mature peptide. This chemokine is a member of the CC subfamily which is characterized by two adjacent cysteine residues. This cytokine displays chemotactic activity for monocytes and basophils but not for neutrophils or eosinophils. It has been implicated in the pathogenesis of diseases characterized by monocytic infiltrates, like psoriasis, rheumatoid arthritis and atherosclerosis. It binds to chemokine receptors CCR2 and CCR4. Elevated expression of the encoded protein is associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. [provided by RefSeq, Aug 2020]

**RANTES:**This gene is one of several chemokine genes clustered on the q-arm of chromosome 17. Chemokines form a superfamily of secreted proteins involved in immunoregulatory and inflammatory processes. The superfamily is divided into four subfamilies based on the arrangement of the N-terminal cysteine residues of the mature peptide. This chemokine, a member of the CC subfamily, functions as a chemoattractant for blood monocytes, memory T helper cells and eosinophils. It causes the release of histamine from basophils and activates eosinophils. This cytokine is one of the major HIV-suppressive factors produced by CD8+ cells. It functions as one of the natural ligands for the chemokine receptor chemokine (C-C motif) receptor 5 (CCR5), and it suppresses in vitro replication of the R5 strains of HIV-1, which use CCR5 as a coreceptor. Alternative splicing results in multiple transcript variants that encode different isoforms. [provided by RefSeq, Jul 2013]

**IL8:**The protein encoded by this gene is a member of the CXC chemokine family and is a major mediator of the inflammatory response. The encoded protein is commonly referred to as interleukin-8 (IL-8). IL-8 is secreted by mononuclear macrophages, neutrophils, eosinophils, T lymphocytes, epithelial cells, and fibroblasts. It functions as a chemotactic factor by guiding the neutrophils to the site of infection. Bacterial and viral products rapidly induce IL-8 expression. IL-8 also participates with other cytokines in the proinflammatory signaling cascade and plays a role in systemic inflammatory response syndrome (SIRS). This gene is believed to play a role in the pathogenesis of the lower respiratory tract infection bronchiolitis, a common respiratory tract disease caused by the respiratory syncytial virus (RSV). The overproduction of this proinflammatory protein is thought to cause the lung inflammation associated with cystic fibrosis. This proinflammatory protein is also suspected of playing a role in coronary artery disease and endothelial dysfunction. This protein is also secreted by tumor cells and promotes tumor migration, invasion, angiogenesis and metastasis. This chemokine is also a potent angiogenic factor. The binding of IL-8 to one of its receptors (IL-8RB/CXCR2) increases the permeability of blood vessels and increasing levels of IL-8 are positively correlated with increased severity of multiple disease outcomes (eg, sepsis). This gene and other members of the CXC chemokine gene family form a gene cluster in a region of chromosome 4q. [provided by RefSeq, May 2020]

**IP10:**This antimicrobial gene encodes a chemokine of the CXC subfamily and ligand for the receptor CXCR3. Binding of this protein to CXCR3 results in pleiotropic effects, including stimulation of monocytes, natural killer and T-cell migration, and modulation of adhesion molecule expression. This gene may also be a key regulator of the 'cytokine storm' immune response to SARS-CoV-2 infection. [provided by RefSeq, Sep 2020]

## Function

**MCP1:**May be involved in the recruitment of monocytes into the arterial wall during the disease process of atherosclerosis. [UniProt]

**RANTES:**May also be an agonist of the G protein-coupled receptor GPR75, stimulating inositol trisphosphate production and calcium mobilization through its activation. 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. [UniProt]

**IL8:**G-protein heterotrimer (alpha, beta, gamma subunits) constitutively binds to CXCR1/CXCR2 receptor and activation by IL8 leads to beta and gamma subunits release from Galpha (GNAI2 in neutrophils) and activation of several downstream signaling pathways including PI3K and MAPK pathways. [UniProt]

**IP10:**Activation of the CXCL10/CXCR3 axis also plays an important role in neurons in response to brain injury for activating microglia, the resident macrophage population of the central nervous system, and directing them to the lesion site. This recruitment is an essential element for neuronal reorganization (By similarity). [UniProt]

Highlight

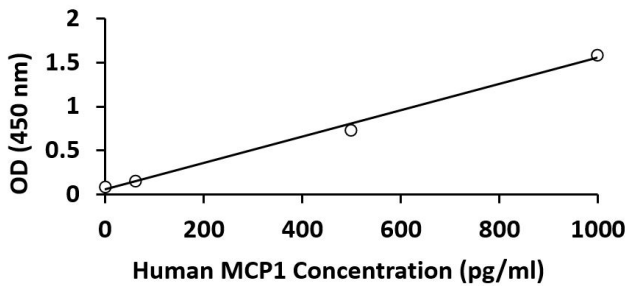
Related Product:  
[anti-MCP1 antibody;](#)  
[anti-RANTES antibody;](#)  
[anti-IL8 antibody;](#)  
[anti-IP10 antibody;](#)

Related news:  
[Inflammatory Chemokine Multiplex ELISA Kit for your research;](#)

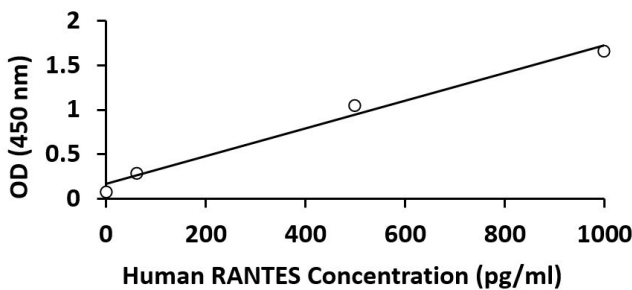
Images

	1	2	3	4	5	6	7	8	9	10	11	12
A	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1
B	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES
C	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8
D	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10
E	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1	MCP1
F	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES	RANTES
G	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8	IL-8
H	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10	IP10

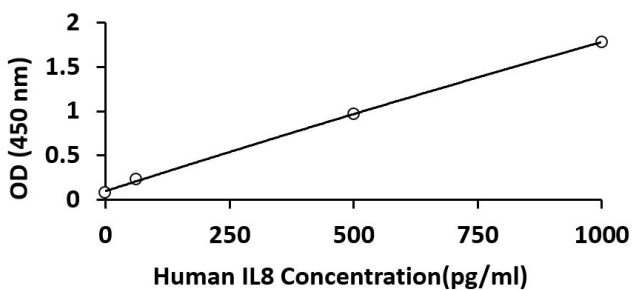
Antibodies Coating Pattern In Microtiter Plate of ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10)



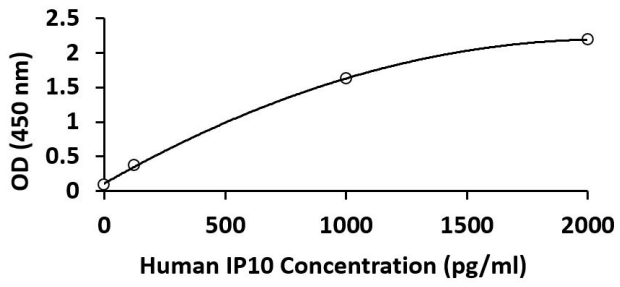
ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) standard curve image  
ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) results of a typical standard for Human MCP1 run with optical density reading at 450 nm.



ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) standard curve image  
ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) results of a typical standard for Human RANTES run with optical density reading at 450 nm.



ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) standard curve image  
ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) results of a typical standard for Human IL8 run with optical density reading at 450 nm.



ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) standard curve image

ARG83673 arigoPLEX® Human Inflammatory Chemokine Multiplex ELISA Kit (MCP1, RANTES, IL8, IP10) results of a typical standard for Human IP10 run with optical density reading at 450 nm.