



Human CC-Chemokine Receptor 2,CCR2 ELISA Kit

Product Code	CSB-E14200h
Abbreviation	CCR2
Protein Biological Process 1	Immunity
Target Name	chemokine (C-C motif) receptor 2
Uniprot No.	P41597
Alias	CC-CKR-2, CCR2A, CCR2B, CD192, CKR2, CKR2A, CKR2B, CMKBR2, MCP-1-R, MCP-1 receptor chemokine (C-C) receptor 2 monocyte chemoattractant protein 1 receptor monocyte chemotactic protein 1 receptor
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Host-virus interaction
Sample Types	serum, plasma, tissue homogenates, cerebrospinal fluid (CSF)
Detection Range	23.44 pg/mL-1500 pg/mL
Sensitivity	5.86 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	CCR2
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-E14200h is a sandwich ELISA kit developed to measure concentrations of human CCR2 in serum, plasma, cerebrospinal fluid (CSF), or tissue homogenates. This assay uses the sandwich enzyme immunoassay technique in combination with the enzyme-substrate chromogenic reaction to quantify the analyte in the sample. The color develops positively to the amount of CCR2 in samples. The color intensity is measured at 450 nm via a microplate reader.

CCR2 is a functional chemotactic receptor mainly expressed on the surface of



monocytes/macrophages and lymphocytes. It regulates many diseases by controlling the bone marrow monocytes' mobilization into the bloodstream and their migration to inflammatory sites. CCR2 plays an important role in the extravasation and transmigration of monocytes during inflammation. CCR2 is involved in liver pathology, including acute liver injury, chronic hepatitis, fibrosis/cirrhosis, and tumor progression, by mediating the recruitment of immune cells to inflammation and tumor sites. CCL2-CCR2 signaling is implicated in many disease pathogenesis, including cancer. Upregulation of CCR2 is associated with advanced cancer, metastasis, and relapse.

Target Details

This gene encodes two isoforms of a receptor for monocyte chemoattractant protein-1, a chemokine which specifically mediates monocyte chemotaxis. Monocyte chemoattractant protein-1 is involved in monocyte infiltration in inflammatory diseases such as rheumatoid arthritis as well as in the inflammatory response against tumors. The receptors encoded by this gene mediate agonist-dependent calcium mobilization and inhibition of adenylyl cyclase. This gene is located in the chemokine receptor gene cluster region. Two alternatively spliced transcript variants are expressed by the gene.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%
Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%
Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of Human CCR2 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	92
	Range %	88-96
1:2	Average %	94
	Range %	90-98
1:4	Average %	85
	Range %	81-89
1:8	Average %	102
	Range %	96-106

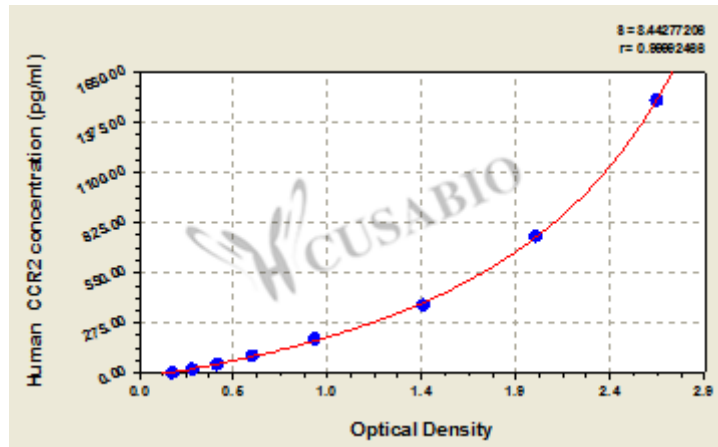
Recovery

The recovery of Human CCR2 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	102	97-106
EDTA plasma (n=4)	88	82-94

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
1500	2.725	2.529	2.627	2.445
750	2.046	1.988	2.017	1.835
375	1.454	1.441	1.448	1.266
187.5	0.922	0.885	0.904	0.722
93.75	0.587	0.584	0.586	0.404
46.88	0.411	0.415	0.413	0.231
23.44	0.287	0.281	0.284	0.102
0	0.182	0.181	0.182	

Msds

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