Bioactive

CCL2 (Human) Recombinant Protein

Catalog # P7491 Size 5 ug

Specification

Product Description	Human CCL2 (P13500, 24 a.a. - 99 a.a.) partial recombinant protein expressed in *Escherichia coli*.
Sequence	QPDAINAPVTCCYNFTNRKISVQRLASYRRITSSKCPKEAVIFKTIVAKEICADPKQKWVQDSMDHL DKQTQTPKT
Host	Escherichia coli
Theoretical MW (kDa)	~ 8.7
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Purity	> 95% as analyzed by SDS-PAGE.
Endotoxin Level	< 0.5 EU/ ug of protein (gel clotting method)
Activity	EC_{50} of human MCP-1/CCL2 < 1.0 ug/mL, measured by Ca^{2+} mobilization assay in CHO-K1/Galph a15/hCCR2 cells (human Galpha15 and human CCR2 stably expressed in CHO-K1 cells).
Recommend Usage	Biological Activity SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from PBS. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 ug/mL.
Storage Instruction	Store at 4°C for 1 week. For long term storage store at -20°C to -83°C. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

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Gene Info — CCL2

Entrez GeneID	6347
Protein Accession#	P13500
Gene Name	CCL2
Gene Alias	GDCF-2, HC11, HSMCR30, MCAF, MCP-1, MCP1, MGC9434, SCYA2, SMC-CF
Gene Description	chemokine (C-C motif) ligand 2
Omim ID	158105 182940 607948 609423
Gene Ontology	Hyperlink
Gene Summary	This gene is one of several cytokine genes clustered on the q-arm of chromosome 17. Cytokines are a family of secreted proteins involved in immunoregulatory and inflammatory processes. The protein encoded by this gene is structurally related to the CXC subfamily of cytokines. Members o f this subfamily are characterized by two cysteines separated by a single amino acid. This cytokin e 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 C CR4. [provided by RefSeq
Other Designations	monocyte chemoattractant protein-1|monocyte chemotactic and activating factor|monocyte chemo tactic protein 1, homologous to mouse Sig-je|monocyte secretory protein JE|small inducible cytoki ne A2|small inducible cytokine A2 (monocyte chemotactic protein 1,

Pathway

- Chemokine signaling pathway
- Cytokine-cytokine receptor interaction

Disease

- Acquired Immunodeficiency Syndrome
- Acute Disease
- AIDS Dementia Complex
- Alopecia Areata

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- Alzheimer disease
- Angina Pectoris
- Arteriosclerosis
- Arthritis
- Ascites
- Asthma
- Atherosclerosis
- Bacterial Infections
- Behcet Syndrome
- Bipolar Disorder
- Birth Weight
- Brain Ischemia
- Breast cancer
- Bronchial Hyperreactivity
- Bronchiolitis
- Calcinosis
- Carcinoma
- Cardiovascular Diseases
- Carotid Artery Diseases
- Carotid Stenosis
- Carpal Tunnel Syndrome
- Celiac Disease
- Cerebrovascular Accident
- Chagas Cardiomyopathy
- Chlamydophila Infections
- Chorioamnionitis

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- Chromosome Breakage
- Chronic Disease
- Cleft Lip
- Cleft Palate
- Cognition
- Cognition Disorders
- Colitis
- Colorectal Neoplasms
- Connective Tissue Diseases
- Coronary Artery Disease
- Coronary Disease
- Crohn Disease
- Cumulative Trauma Disorders
- Dementia
- Depressive Disorder
- Dermatitis
- Dermatomyositis
- Diabetes
- Diabetes Complications
- Diabetes Mellitus
- Diabetic Nephropathies
- Diabetic Retinopathy
- Disease Progression
- Disease Susceptibility
- Drug Toxicity
- Duodenal Ulcer

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- Edema
- Encephalitis
- Encephalomyelitis
- Endometrial Neoplasms
- Endometriosis
- Esophagitis
- Fetal Diseases
- Fetal Membranes
- Fibrosis
- Gastritis
- Gender Identity
- Genetic Predisposition to Disease
- Glioblastoma
- Glioma
- Glomerulonephritis
- Graft vs Host Disease
- Heart Defects
- Helicobacter Infections
- Hepatitis B
- Hepatitis C
- HIV Infections
- HTLV-I Infections
- Hypercholesterolemia
- Hyperinsulinism
- Hypersensitivity
- Hypertension

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- Hypoplastic Left Heart Syndrome
- Immune System Diseases
- Infant
- Infection
- Inflammation
- Inflammatory Bowel Diseases
- Insulin Resistance
- Kidney Diseases
- Kidney Failure
- Kidney Neoplasms
- Leishmaniasis
- Leukemia
- Liver Cirrhosis
- Liver Neoplasms
- Lung Diseases
- Lung Neoplasms
- Lupus Erythematosus
- Lupus Nephritis
- Lymphangioleiomyomatosis
- Lymphoma
- Macular Degeneration
- Meningeal Neoplasms
- Meningioma
- Metabolic Syndrome X
- Mood Disorders

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- Multiple Sclerosis
- Musculoskeletal Diseases
- Myocardial Infarction
- Myocardial Ischemia
- Narcolepsy
- Nasopharyngeal Neoplasms
- Neoplasm Metastasis
- Neoplasms
- Neural Tube Defects
- Neuropsychological Tests
- Obesity
- Obstetric Labor
- Ocular Hypertension
- Osteoarthritis
- Osteoporosis
- Pain
- Pancreatitis
- Parkinson disease
- Pelvic Inflammatory Disease
- Peripheral Vascular Diseases
- Peritonitis
- Pneumoconiosis
- Polymyositis
- Precancerous Conditions
- Pre-Eclampsia
- Pregnancy Complications

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- Premature Birth
- Prostate cancer
- Prostatic Neoplasms
- Psoriasis
- Pulmonary Disease
- Radiation Injuries
- Radiation Pneumonitis
- Recurrence
- Respiratory Syncytial Virus Infections
- Retinal Diseases
- Retinal Vasculitis
- Retinal Vein Occlusion
- Rhabdomyolysis
- Sarcoidosis
- Schizophrenia
- Schizophrenic Psychology
- Scleroderma
- Severe Acute Respiratory Syndrome
- Skin Diseases
- Stomach Ulcer
- Stroke
- Syndrome
- Thrombocytopenia
- Translocation
- Tuberculosis
- Tuberous sclerosis

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- Urinary Bladder Neoplasms
- Uterine Diseases
- Uveitis
- Uveomeningoencephalitic Syndrome
- Vasculitis
- Vision
- Weight Gain

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