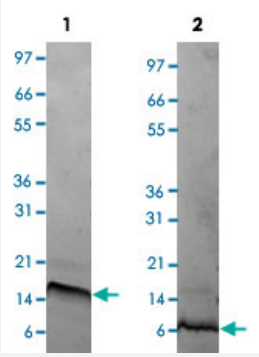
Bioactive

CXCL12 (Alpha) (Human) Recombinant Protein

Catalog # P4439 Size 10 ug

Applications



Lane 1: non-reducing conditions
Lane 2: reducing conditions

Result of activity analysis

Result of activity analysis

Human T cells were allowed to migrate to human CXCL12 at (0, 5, 20, 100 and 500 ng/mL). After 4 hours, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above.

Specification

Product Description	Human CXCL12 (alpha) (P48061-2) recombinant protein expressed in *Escherichia coli*.
Sequence	KPVSLSYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWIQEYLEKAL NK
Host	Escherichia coli
Theoretical MW (kDa)	8
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Endotoxin Level	< 0.1 EU/ug

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Activity	The activity is determined by the ability to chemoattract human peripheral T cells and is detectable st arting at 5 ng/mL
Quality Control Testing	1 ug/lane in 4-20% Tris-Glycine gel Stained with Coomassie Blue Lane 1: non-reducing conditions Lane 2: reducing conditions
Storage Buffer	No additive
Storage Instruction	Store at -20°C on dry atmosphere. After reconstitution with sterilized water, store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis Human T cells were allowed to migrate to human CXCL12 at (0, 5, 20, 100 and 500 ng/mL). After 4 h ours, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above.

Applications

- Functional Study
- SDS-PAGE

Gene Info — CXCL12

Entrez GeneID	6387
Protein Accession#	P48061-2
Gene Name	CXCL12
Gene Alias	PBSF, SCYB12, SDF-1a, SDF-1b, SDF1, SDF1A, SDF1B, TLSF-a, TLSF-b, TPAR1
Gene Description	chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)
Omim ID	600835 609423
Gene Ontology	Hyperlink

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Gene Summary	For background information on chemokines, see CXCL1 (MIM 155730). Stromal cell-derived fact ors 1-alpha and 1-beta are small cytokines that belong to the intercrine family, members of which activate leukocytes and are often induced by proinflammatory stimuli such as lipopolysaccharide, TNF (see MIM 191160), or IL1 (see MIM 147760). The intercrines are characterized by the prese nce of 4 conserved cysteines which form 2 disulfide bonds. They can be classified into 2 subfamili es. In the CC subfamily, which includes beta chemokine, the cysteine residues are adjacent to ea ch other. In the CXC subfamily, which includes alpha chemokine, they are separated by an interve ning amino acid. The SDF1 proteins belong to the latter group.[supplied by OMIM
Other Designations	OTTHUMP00000019491|stromal cell-derived factor 1 delta|stromal cell-derived factor 1 gamma|s tromal cell-derived factor 1a

Pathway

- Axon guidance
- Chemokine signaling pathway
- Cytokine-cytokine receptor interaction
- Leukocyte transendothelial migration

Disease

- Acquired Immunodeficiency Syndrome
- Acute Disease
- AIDS Dementia Complex
- Alzheimer disease
- Anthropology
- Asthma
- Atherosclerosis
- Autoimmune Diseases
- Blast Crisis
- Blindness
- Brain Ischemia

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- Breast cancer
- Breast Neoplasms
- Bronchial Hyperreactivity
- Carcinoma
- Cardiovascular Diseases
- Carotid Artery Diseases
- Carotid Stenosis
- Central Nervous System Diseases
- Central Nervous System Neoplasms
- Cerebral Hemorrhage
- Chlamydia Infections
- Cognition Disorders
- Colon cancer
- Colonic Neoplasms
- Colorectal Neoplasms
- Coronary Artery Disease
- Coronary Disease
- Diabetes Mellitus
- Diabetic Retinopathy
- Disease Progression
- Disease Susceptibility
- Edema
- Flaviviridae Infections
- Genetic Predisposition to Disease
- Head and Neck Neoplasms
- Hematologic Neoplasms

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- Hemophilia A
- Hepatitis
- Hepatitis B
- Hepatitis C
- HIV Infections
- HIV Seropositivity
- Hodgkin Disease
- HTLV-I Infections
- Hyperlipidemias
- Hypersensitivity
- Hypertension
- Inflammation
- Intracranial Hemorrhages
- Kidney Failure
- Laryngeal Neoplasms
- Leukemia
- Liver Cirrhosis
- Liver Neoplasms
- Lung Neoplasms
- Lupus Erythematosus
- Lymphatic Metastasis
- Lymphoma
- Migraine Disorders
- Mouth Neoplasms
- Multiple Myeloma
- Myocardial Infarction

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- Neoplasm Invasiveness
- Neoplasm Metastasis
- Neuropsychological Tests
- Osteoporosis
- Ovarian Failure
- Pregnancy Complications
- Prostate cancer
- Prostatic Neoplasms
- Rectal Neoplasms
- Recurrence
- Retinal Diseases
- Salivary Gland Neoplasms
- Scleroderma
- Sexually Transmitted Diseases
- Skin Ulcer
- Stroke
- Subarachnoid Hemorrhage
- Substance Abuse
- Thyroid Diseases
- Trachoma
- Tuberculosis
- Urinary Bladder Neoplasms
- Uterine Cervical Neoplasms
- Viremia
- Waldenstrom Macroglobulinemia

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