

Active Recombinant Human CXCL12 protein, His-tagged

Cat. No. CXCL12-2167H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human CXCL12 protein(P48061)(23~89 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	23-89 aa
Form	Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Bio-activity	SDF1 (stromal cell-derived factor 1), also known as C-X-C motif chemokine12, is a chemokine protein that has chemotaxis active on T-lymphocytes and monocytes. It is thought that SDF1 stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3; thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of SDF1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100uL cell suspension, 10^6 cells/mL in RPMI 1640 with 0.5% FBS) and SDF1 (10ng/mL, 30ng/mL and 60ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8μm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO ₂ for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high

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magnification (×400) randomly (five fields for each filter). Result shows SDF1 is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (×100) were shown. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). The optimum chemotaxis of SDF1 occurs at 10~60ng/mL.

Molecular Mass	9.1kDa
Purity	> 95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	CXCL12 chemokine (C-X-C motif) ligand 12 [Homo sapiens]
Official Symbol	CXCL12
Synonyms	CXCL12; chemokine (C-X-C motif) ligand 12; SDF1, SDF1A, SDF1B, stromal cell derived factor 1; stromal cell-derived factor 1; PBSF; SCYB12; SDF 1a; SDF 1b; TLSF a; TLSF b; TPAR1; intercrine reduced in hepatomas; pre-B cell growth-stimulating factor; IRH; SDF1; TLSF; SDF1A; SDF1B;
Gene ID	6387
mRNA Refseq	NM_000609

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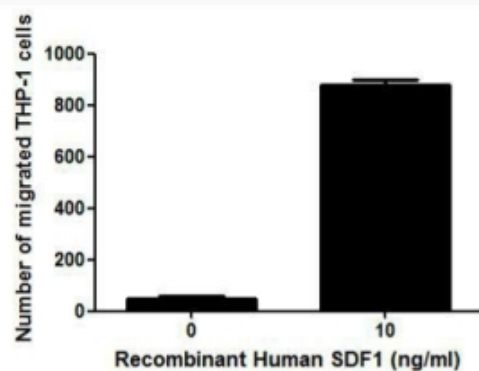
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Protein Refseq NP_000600

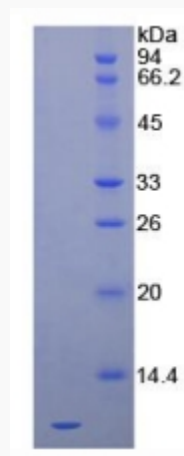
MIM 600835

UniProt ID P48061

Activity



SDS-PAGE



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