

Active Recombinant Human CXCL12, His-tagged

Cat. No. CXCL12-21H Lot. No. (See product label)

SPECIFICATION

Product Overview Human N-his-tag SDF-1 β produced in E. coli is non-glycosylated polypeptide chain containing 100 amino acids (28-100 a.a; predicted MW=11.67kDa). The SDF-1 β is fused to 28 amino acid His-tag at N-terminal. The recombinant protein was purified by Ni-NTA affinity column and followed by gel filtration chromatography.

Species Human

Source E.coli

ProteinLength 28-100 a.a.

Description SDF-1 (stromal cell-derived factor-1), also called CXCL12, is small cytokine belonging to the chemokine family. The two forms, SDF-1 alpha/CXCL12a and SDF-1 β /CXCL12b, are produced in cells by alternate splicing of the same gene. SDF-1 signal through its receptor CXCR4, and have been shown to chemoattract B and T cells, induce migration of CD34+ stem cells. Additionally, SDF-1 and its receptor CXCR4 are involved in human disease states (e.g. HIV/AIDS) and cancer metastasis.

Form Lyophilized from a 0.22 μ m filtered solution at a concentration of 1mg/ml in PBS.

Bio-activity The protein was active in ELISA assay with an EC50 of about 160nM.

Molecular Mass The measure MW in LC-MS was 11548 Dalton, in agreement with its theoretic molecular weight.

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AA Sequence	MGSSHHHHHSSGLVPRGSHMENLYFQGKPVLSYRCP RFFESHVARANVKHLK ILNTPNCALNNRQVCIDPKL KWIQEYLEKALNKRFKM
Purity	Purity was greater than 95% by Coomassie blue staining SDS-PAGE
Storage	Upon reconstitution, the preparation is stable for up to 1 month at 2-8°C. For long term storage, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water to a concentration of 1.0 mg/ml.

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
Protein Refseq	NP_000600
MIM	600835

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UniProt ID	P48061
Chromosome Location	10q11.1
Pathway	Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Chemokine receptors bind chemokines, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem;
Function	CXCR chemokine receptor binding; chemokine activity; growth factor activity; receptor binding;

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