

Active Recombinant Human CXCL12 Protein

Cat. No. CXCL12-13H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CXCL12 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	68 amino acids
Description	This antimicrobial gene encodes a stromal cell-derived alpha chemokine member of the intercrine family. The encoded protein functions as the ligand for the G-protein coupled receptor, chemokine (C-X-C motif) receptor 4, and plays a role in many diverse cellular functions, including embryogenesis, immune surveillance, inflammation response, tissue homeostasis, and tumor growth and metastasis. Mutations in this gene are associated with resistance to human immunodeficiency virus type 1 infections. Multiple transcript variants encoding different isoforms have been found for this gene.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Fully biologically active when compared to standard. Determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration range of 20.0-80.0 ng/mL, corresponding to a Specific Activity of 1.25×10^4 IU/mg.
Molecular Mass	8.0 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.

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AA Sequence	KPVLSYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWI QEYLEKALNK
Endotoxin	Less than 1 EU/μg of rHuSDF-1 alpha as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 or -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, pH 130mM NaCl.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	CXCL12 C-X-C motif chemokine ligand 12 [Homo sapiens (human)]
Official Symbol	CXCL12
Synonyms	CXCL12; C-X-C motif chemokine ligand 12; IRH; PBSF; SDF1; TLSF; TPAR1; SCYB12; stromal cell-derived factor 1; chemokine (C-X-C motif) ligand 12; intercrine reduced in hepatomas; pre-B cell growth-stimulating factor

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Gene ID	6387
mRNA Refseq	NM_000609
Protein Refseq	NP_000600
MIM	600835
UniProt ID	P48061

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