

## Recombinant Mouse CXCL12 protein

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

### SPECIFICATION

<b>Product Overview</b>	Recombinant Mouse CXCL12 beta protein was expressed in Escherichia coli.
<b>Species</b>	Mouse
<b>Source</b>	E.coli
<b>ProteinLength</b>	72
<b>Description</b>	<p>CXCL12 also known as SDF-1 is belonging to the CXC chemokine family. Murine CXCL12 is expressed as two isoforms that differ only in the C-terminal tail. Both SDF-1 isoforms undergo proteolytic processing of the first two N-terminal amino acids. In all SDF-1 isoforms, SDF-1<math>\beta</math> is the canonical sequence. It has the complete amino acids in the C-terminal tail. On the cell surface, the receptor for this chemokine is CXCR4 and syndecan4. CXCL12 is strongly chemotactic for T-lymphocytes, monocytes, but not neutrophils. SDF-1 is highly conserved between species, murine CXCL12<math>\beta</math> shares approximately 92 % amino acid sequence identity with human CXCL12<math>\beta</math>.</p>
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood monocytes is in a concentration range of 50-100 ng/ml.

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<b>Molecular Mass</b>	Approximately 8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acids.
<b>AA Sequence</b>	KPVLSYRCP CRFFESH IARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKI QEYLEKALNKRLKM
<b>Endotoxin</b>	Less than 1 EU/μg of rMuSDF-1β/CXCL12β as determined by LAL method.
<b>Purity</b>	>97% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	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

<b>Gene Name</b>	CXCL12
<b>Official Symbol</b>	CXCL12
<b>Synonyms</b>	CXCL12; chemokine (C-X-C motif) ligand 12; stromal cell-derived factor 1; C-X-C motif chemokine 12; pre-B cell growth-stimulating factor; pre-B-cell growth-stimulating factor; thymic lymphoma cell-stimulating factor; 12-O-tetradecanoylphorbol 13-acetate repressed protein 1; Pbsf; Sdf1; Tlsf; Sdf1a; Sdf1b; Tlsfa; Tlsfb; Tpar1; Scyb12;

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	AI174028;
<b>Gene ID</b>	20315
<b>mRNA Refseq</b>	NM_001012477
<b>Protein Refseq</b>	NP_001012495
<b>UniProt ID</b>	P40224

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