Recombinant Mouse CXCL12 protein

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

SPECIFICATION

Product Overview	Recombinant Mouse CXCL12 beta protein was expressed in Escherichia coli.
Species	Mouse
Source	E.coli
ProteinLength	72
Description	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-1β 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 CXCL12β shares approximately 92 % amino acid sequence identity with human CXCL12β.
Form	Lyophilized from a 0.2μm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Bio-activity	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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Molecular Mass	Approximately 8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acids.
AA Sequence	KPVSLSYRCPCRFFESHIARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWIQEYLEKALNKRLKM
Endotoxin	Less than 1 EU/μg of rMuSDF-1β/CXCL12βas determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analysis.
Storage	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.
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
Official Symbol	CXCL12
Synonyms	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;
Gene ID	20315
mRNA Refseq	NM_001012477
Protein Refseq	NP_001012495
UniProt ID	P40224

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