

Cxcl12

Recombinant Mouse SDF-1 alpha / CXCL12

Catalog No.	CRS001A	Quantity:	2 µg
	CRS001B		10 µg
	CRS001C		1.0 mg

Description: Stromal-Cell Derived Factor-1 alpha/ CXCL12 (SDF-1α) and SDF-1β, members of the chemokine α subfamily that lack the ELR domain, were initially identified using the signal sequence trap cloning strategy from a mouse bone-marrow stromal cell line. These proteins were subsequently also cloned from a human stromal cell line as cytokines that supported the proliferation of a stromal cell-dependent pre-B-cell line. SDF-1α and SDF-1β cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1α and SDF-1β are encoded by a single gene and arise by alternative splicing. The two proteins are identical except for the four amino acid residues that are present in the carboxy-terminus of SDF-1β and absent from SDF-1α. SDF-1/PBSF is highly conserved between species, with only one amino acid substitution between the mature human and mouse proteins. SDF-1/PBSF acts via the chemokine receptor CXCR4 and has been shown to be a chemoattractant for T-lymphocytes, monocytes, pro- and pre- B cells, but not neutrophils. Mice lacking SDF-1 or CXCR4 have been found to have impaired B lymphopoiesis, myelopoiesis, vascular development, cardiogenesis and abnormal neuronal cell migration and patterning in the central nervous system .

UniProt ID: Q4FJL5

Gene ID: 20315

Source: *E. coli*

Molecular Weight: 8 kDa (68 aa), monomer
Under non-reducing conditions, samples prepared at higher working concentrations produce a band of ~16 kDa on an SDS PAGE gel, which may represent dimer formation.

Formulation: Lyophilized from a sterile-filtered solution containing 1% Trifluoroacetic acid (TFA)

Purity: ≥ 95% by reducing and non-reducing SDS-PAGE

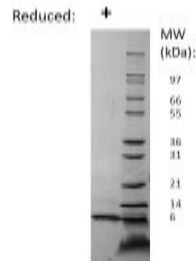
Endotoxin Level: ≤ 1EU/µg, determined by kinetic LAL analysis

Biological Activity: Activity data are unavailable at this time.

Amino Acid Sequence: KPVLSYRCP CRFFESHIAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC
IDPKLKWIQE YLEKALNK

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for complete reconstitution.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, store at 2-8°C for up to 1 month or prepare working aliquots and store at -20°C to -80°C for up to 3 months. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. **Avoid repeated freeze-thaw cycles.**



Mouse SDF-1 alpha Gel
Figure: 1 ug run under (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Mouse SDF-1 alpha has a predicted MW of 8.0 kDa.

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