

Cxcl12

Recombinant Rat CXCL12/SDF-1 alpha

Catalog No.	CSI20133A CSI20133B CSI20133C	Quantity:	2 µg 10 µg 1.0 mg
Alternate Names:	SDF1, SDF1A, SDF1B, Sdf1		
Description:	SDF-1 alpha and SDF-1 beta, members of the chemokine alpha 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-1 alpha and SDF-1 beta cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1 alpha and SDF-1 beta 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-1 beta and absent from SDF-1 alpha. 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.		
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.		
Gene ID:	24772		
Source:	<i>E. coli</i>		
Molecular Weight:	Approximately 7.9 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.		
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.		
Purity:	>97% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	Less than 1EU/µg of rRtSDF-1alpha/CXCL12 as determined by LAL method.		
Biological 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.		
Amino Acid Sequence:	KPVLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKSNNRQVC IDPKLKWIQE YLDKALNK		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed.		



Storage & Stability: This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.



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