Product Datasheet

Recombinant Human SDF-1 alpha (rHuSDF-1 alpha/CXCL12- alpha) (orb1495023)

Description	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.
Endotoxins	Less than 1EU/µg of rHuSDF-1 alpha as determined by LAL method.
Preservatives	Lyophilized from a 0.2µm filtered concentrated solution in 20mM PB, pH 130mM NaCl.
Form/Appearance	Lyophilized from a 0.2µm filtered concentrated solution in 20mM PB, pH 130mM NaCl.
Storage	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Note	For research use only
Application notes	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°C. Further dilutions should be made in appropriate buffered solutions.

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Protein Sequence	KPVSLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK
Purity	> 97% by SDS-PAGE and HPLC analyses.
Source	Escherichia coli.
MW	8.0 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.
Expiration Date	6 months from date of receipt.

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