

Stromal Cell-Derived Factor-1 alpha Active Protein | SDF 1a active protein

Recombinant Human Stromal Cell-Derived Factor-1 alpha (CXCL12)

CATALOG #
AAA38080

HOST
E Coli

PRODUCT SYNONYMS

Stromal Cell-Derived Factor-1 alpha; Recombinant Human Stromal Cell-Derived Factor-1 alpha (CXCL12); SDF 1a Human; Stromal Cell-Derived Factor-1 Alpha Human Recombinant (CXCL12); SDF-1; CXCL12; Pre-B cell growth-stimulating factor; PBSF; hIRH; chemokine (C-X-C motif) ligand 12; SDF1; SDF1A; TPAR1; SCYB12; SDF-1a; TLSF-a; SDF 1a active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Form/Format	The protein was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives. Sterile Filtered White lyophilized (freeze-dried) powder.
Sequence	Thesequenc eofthefirs tfiveN-ter minalamino acidswasde terminedan dwasfoundt obeLys-Pro -Val-Ser-L eu
Sequence Length	93
Solubility	It is recommended to reconstitute the lyophilized Stromal Cell-Derived Factor-1a in sterile 18M Omega -cm H2O not less than 100 ug/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The specific activity as determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration of 20-80 ng/ml corresponding to a Specific Activity of 12,500-50,000IU/mg.
Preparation and Storage	Lyophilized SDF-1a although stable at room temperature for 3 weeks, should be stored desiccated below -18 degree C. Upon reconstitution CXCL12 should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for SDF 1a active protein	Description: Stromal Cell-Derived Factor-1 alpha Human Recombinant produced in E Coli is a non-glycosylated, Polypeptide chain containing 68 amino acids and having a molecular mass of 8004 Dalton. The SDF-1a is purified by proprietary chromatographic techniques. Introduction: SDF-1 (stromal cell-derived factor-1) is small cytokine belonging to the chemokine family that is officially designated Chemokine (C-X-C motif) ligand 12 (CXCL12). It is produced in two forms, SDF-1?/CXCL12a and SDF-1?/CXCL12b, by alternate splicing of the same gene. Chemokines are characterized by the presence of four conserved cysteines, which form two disulfide bonds. The CXCL12 proteins belong to the group of CXC chemokines, whose initial pair of cysteines are separated by one intervening amino acid. CXCL12 is strongly chemotactic for lymphocytes and has been implicated as an important cell co-ordinator during development. During embryogenesis it directs the migration of hematopoietic cells from foetal liver to bone marrow. Mice which were knocked-out for CXCL12 gene were lethal before the birth or within just 1 hour of life. As another role, CXCL12a alters also the electrophysiology of neurons. CXCL12 was shown to be expressend in many tissues in mice (including brain, thymus, heart, lung, liver, kidney, spleen and bone marrow).The receptor for this chemokine is CXCR4, which was previously called fusin. This CXCL12-CXCR4 interaction used to be considered exclusive (unlike for other chemokines and their receptors), but recently it was suggested that CXCL12 is also bound by CXCR7 receptor. The gene for CXCL12 is located on human chromosome 10. In human and mouse both CXCL12 and CXCR4 show high identity of sequence: 99% and 90%, respectively.
Product Categories/Family for SDF 1a active protein	Chemokines; SDF (CXCL12)

NCBI AND UNIPROT INFORMATION

NCBI GI #	10834988
NCBI GeneID	6387
NCBI Accession #	NP_000600.1
NCBI GenBank Nucleotide #	NM_000609.6
UniProt Accession #	P48061; Q2L985; Q2L986; Q2L988; Q5IT36; Q6ICW0; Q9H554; B2R4G0; E7EVL0; H7BYN8
Molecular Weight	11,004 Da
NCBI Official Full Name	stromal cell-derived factor 1 isoform beta
NCBI Official Synonym Full Names	chemokine (C-X-C motif) ligand 12
NCBI Official Symbol	CXCL12
NCBI Official Synonym Symbols	IRH; PBSF; SDF1; TLSF; TPAR1; SCYB12
NCBI Protein Information	stromal cell-derived factor 1; intercrine reduced in hepatomas; pre-B cell growth-stimulating factor
UniProt Protein Name	Stromal cell-derived factor 1
UniProt Gene Name	CXCL12
UniProt Synonym Gene Names	SDF1; SDF1A; SDF1B; SDF-1; hSDF-1; IRH; hIRH; PBSF
UniProt Entry Name	SDF1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-sdf-1a-active-protein/stromal-cell-derived-factor-1-alpha/38080>