

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Murine Stromal-Cell Derived Factor-1 alpha/CXCL12 (rMuSDF-1a/CXCL12)

Catalog Number: PR2035

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

Description

SDF-1 α and SDF-1 β , 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-1 α and SDF-1 β cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1 α and SDF-1 β 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 β and absent from SDF-1 α . 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.

Molecular Weight:

Approximately 7.9 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Measured by its ability to chemoattract human CXCR4 transfected BaF3 mouse proB cells. The ED50 for this effect is typically 0.15-0.6 ng/mL.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

K P V S L S Y R C P C R F F E S H I A R A N V K H L K I
L N T P N C A L Q I V A R L K N N N R Q V C I D P K L
K W I Q E Y L E K A L N K

Endotoxin:

Less than 1EU/µg of rMuSDF-1a/CXCL12 as determined by LAL method.

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°C. Further dilutions should be made in appropriate buffered solutions.

MADE IN CHINA

Bioworld Technology, Inc.

1660 South Highway 100, Suite 500 St. Louis Park, MN

55416, USA.

Tel: 6123263284

Email: info@bioworld.com

Fax: 6122933841

Bioworld technology, co, Ltd.

No 9, weidi road Qixia District Nanjing, 210046, P, R.China.

Tel: 0086-025-86371664

Email: info@biogot.com

Fax: 0086-025-86213570

PRODUCT DATA SHEET

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 reconsti-

tuted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

MADE IN CHINA

Bioworld Technology, Inc.

1660 South Highway 100, Suite 500 St. Louis Park, MN
55416, USA. Email: info@bioworld.com
Tel: 6123263284 Fax: 6122933841

Bioworld technology, co, Ltd.

No 9, weidi road Qixia District Nanjing, 210046, P, R.China.
Email: info@biogot.com
Tel: 0086-025-86371664 Fax: 0086-025-86213570