

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

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CHM-324
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➤ **Description :**

Recombinant Murine SDF-1a produced in E.Coli is a non-glycosylated, Polypeptide chain containing 68 amino acids and having a molecular mass of 7921 Dalton.

Murine SDF-1a is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

➤ **Formulation:**

SDF-1a is lyophilized from a concentrated (1mg/ml) sterile solution containing 10mM acetic acid (AcOH).

➤ **Solubility:**

It is recommended to reconstitute the lyophilized SDF-1alpha in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized SDF-1alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution SDF-1a should be stored at 4° C between 2-7 days and for future use below -18° C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **Amino-Acid Sequence :**

The sequence of the first five N-terminal amino acids was determined and was found to be *Lys-Pro-Val-Ser-Leu*.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This SDF-1alpha is fully biologically active when compared to standard. The specific activity as determined by its ability to chemoattract human monocytes at 50-100 ng/ml.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Recombinant Murine Stromal Cell-Derived Factor-1 alpha.

➤ **Protein content:**

SDF-1a protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm .
2. Analysis by RP-HPLC, using a calibrated solution of Recombinant Murine Stromal Cell-Derived Factor-1 beta as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.