

Datasheet for ABIN6699684

**CXCL12 Protein****2** Images[Go to Product page](#)

## Overview

Quantity:	100 µg
Target:	CXCL12
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	SDS-PAGE (SDS)

## Product Details

Purpose:	Human Stromal Cell-Derived Factor-1 alpha (CXCL12) Recombinant Protein
Purification:	Stromal Cell-Derived Factor-1 alpha (CXCL12) purity was determined to be greater than 98% as determined by HpLC, analysis by UV-Spectroscopy at 280nm, and by reducing and non-reducing SDS-pAGE.
Purity:	98,00%
Endotoxin Level:	Measured by LAL is typically $\leq 1$ EU/µg protein.
Biological Activity Comment:	The activity is determined by its ability to chemoattract human peripheral T cells at 10 - 75 ng/mL.

## Target Details

Target:	CXCL12
Alternative Name:	CXCL12 ( <a href="#">CXCL12 Products</a> )
Background:	Synonyms: C-X-C motif chemokine 12, Interchrine reduced in hepatomas (IRH, hIRH), Pre-B cell

## Target Details

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growth-stimulating factor (PBSF)

Background: Stromal cell Derived Factor-1 alpha (SDF-1 $\alpha$ ), also called CXCL12, is one of two splice variants made by a wide variety of cells when stimulated by inflammatory cytokines such as, TNF, IL-1 or LPS. SDF-1 $\alpha$  signals through the G protein-couple receptor, CXCR4, to recruit activated leukocytes. Human and mouse SDF-1 $\alpha$  share 99 % sequence identity. Recombinant human SDF-1 $\alpha$  is a non-glycosylated protein, containing 68 amino acids, with a molecular weight of 8 kDa.

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UniProt: [P48061](#)

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Pathways: [Regulation of Cell Size](#), [CXCR4-mediated Signaling Events](#), [Negative Regulation of intrinsic apoptotic Signaling](#)

## Application Details

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Application Notes: Other: User Optimized  
Application\_Note: Stromal Cell-Derived Factor-1 alpha Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Stromal Cell-Derived Factor-1 alpha in immunological assays.

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Comment: Suggested\_Applications: Cellular Assay  
Other\_Performance\_Data:

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Restrictions: For Research Use only

## Handling

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Format: Lyophilized

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Reconstitution: Reconstitution\_Buffer: Restore with deionized water (or equivalent)  
Reconstitution\_Volume: 100  $\mu$ L

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Concentration: 0.1 mg/mL

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Buffer: Buffer: 0.1 % Trifluoroacetic acid  
Stabilizer: None

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Preservative: Without preservative

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Storage: 4 °C, -20 °C

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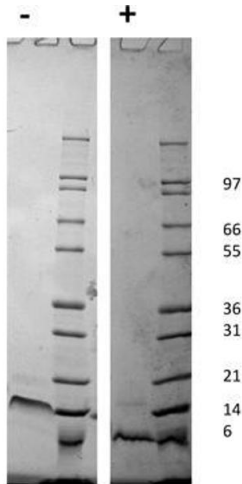
Storage Comment: Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier

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protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.

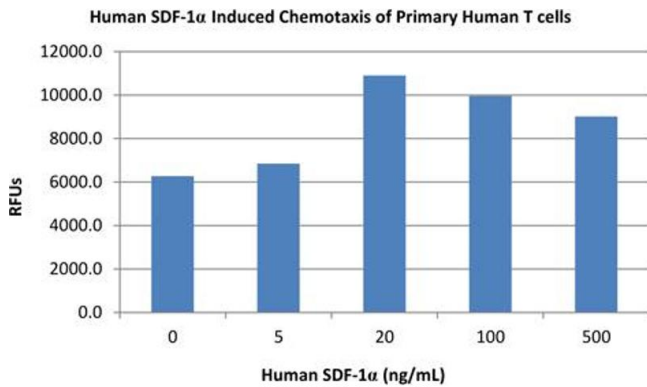
Expiry Date: 6 months

Images



SDS-PAGE

**Image 1.** SDS-PAGE of Human Stromal Cell-Derived Factor-1 alpha (CXCL12) Recombinant Protein. Lane 1: 1 µg Human SDF-1 alpha in non-reducing conditions. Lane 2: Molecular weight marker. Lane 3: 1 µg Human SDF-1 alpha in reducing conditions (+). Lane 4: Molecular weight marker. Human SDF-1 alpha has a predicted MW of 8 kDa.



SDS-PAGE

**Image 2.** SDS-PAGE of Human Stromal Cell-Derived Factor-1 alpha (CXCL12) Recombinant Protein Bioactivity of Human Stromal Cell-Derived Factor-1 alpha (CXCL12). Human T cells were allowed to migrate to Human SDF-1α at (0, 5, 20, 100, 500 ng/mL). After 4 hours, cells that migrated were counted using a luminescent substrate and displayed on the bar graph above. Significant increases in migration over basal levels were seen in response to Human SDF-1α detectable starting at between 5-20 ng/mL.