

## Recombinant Human CXCL12 / C-X-C Motif Chemokine Ligand 12 (24-88), Animal Free & Carrier Free

Cat #: C-CYP340

Size: 5µg, 20µg, 100µg, 500µg, 1mg

Shipping: Blue Ice

### Product Overview

The stromal cell-derived factor 1(SDF1), also known as C-X-C motif chemokine 12 (CXCL12), is a chemokine protein that in humans is encoded by the CXCL12 gene on chromosome 10. It is ubiquitously expressed in many tissues and cell types. Stromal cell-derived factors 1-alpha and 1-beta are small cytokines that belong to the chemokine family, members of which activate leukocytes and are often induced by proinflammatory stimuli such as lipopolysaccharide, TNF, or IL1. The chemokines are characterized by the presence of 4 conserved cysteines that form 2 disulfide bonds. They can be classified into 2 subfamilies. In the CC subfamily, the cysteine residues are adjacent to each other. In the CXC subfamily, they are separated by an intervening amino acid. The SDF1 proteins belong to the latter group. CXCL12 signaling has been observed in several cancers. The CXCL12 gene also contains one of 27 SNPs associated with increased risk of coronary artery disease.

### Product Information

**Source:** *Escherichia Coli*.

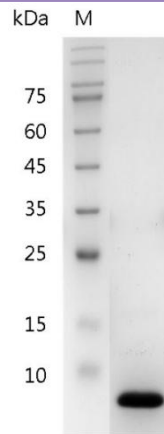
**Purity:** >98% as determined by SDS-PAGE. Ni-NTA chromatography.

**Biological Activity:** Measure by its ability to chemoattract BaF3 cells transfected with human CXCR4. The ED50 for this effect is <0.5 ng/mL.

**Endotoxin:** <0.1EU per 1µg of the protein by the LAL method.

**Amino acid sequence:** MVLSYRCPFRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWIQEYLEKALN with polyhistidine tag at the C-terminus.

**Formulation:** Lyophilized from a sterile filtered aqueous solution in 20mM sodium citrate, 0.1M NaCl, pH 4.5.



SDS-PAGE analysis of recombinant human CXCL12

## Usage Method

1. Before opening, it is recommended to centrifuge at 3000-3500 rpm for 5 minutes.
2. Reconstitute to a concentration of 0.1-1.0 mg/mL in sterile distilled H<sub>2</sub>O. Allow the solution to sit at room temperature for at least 20 minutes to ensure complete dissolution. Avoid vigorous vortexing.
3. The reconstituted solution can be stored at 2-8°C for up to 1 week.
4. For long-term storage, it is recommended to further dilute the solution with a carrier protein (such as 0.1% BSA, 10% FBS, or 5% HSA) to a concentration of no less than 10 µg/mL and aliquot for storage at -20°C to -80°C for 3 to 6 months. If serum-free experiments are required, a 5% trehalose solution can be used as a carrier instead. Avoid repeated freeze-thaw cycles.

## Storage

Physical Appearance	Storage	Stability
Lyophilized powder	-20°C to -80°C	1 year
Reconstitution (initial)	2°C to 8°C	Less than 1 week
Reconstitution (after dilution)	-20°C to -80°C	3 to 6 months

## Note

The reagent is only used in the field of scientific research, not suitable for clinical diagnosis or other purposes.