

## Recombinant Human CXCL12/SDF-1 Protein

RPCB1496

### Description

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This high-purity recombinant protein is supplied as a kit for advanced applications. The kit includes Bradford Reagent to quantify total protein concentration for accurate sample normalization (Optional).

### Protein Information

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**SKU:** RPCB1496

**Calculated MW:** 7.96 kDa

**Contents:** 10 µg, 20 µg, 50 µg, 100 µg  
Bradford Reagent (1 vial, 2ml)

**Observed MW:** 12 kDa

**Reactivity:** Human

**Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Human CXCL12/SDF-1 Protein (RPCB1496), tested reactivity in Pichia and has been validated in SDS-PAGE. 100% guaranteed.

**Gene ID:** 6387

**Protein Quantification (Optional):** To quantify total protein levels, use the Bradford Reagent included in this kit. Visit <https://www.assaygenie.com/bradford-protein-assay-protocol/> to view the full protocol.

**Expression Host:** Pichia

**Storage:** Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

**Tags:** NO-tag

**Background:** Acts as a positive regulator of monocyte migration and a negative regulator of monocyte adhesion via the LYN kinase. Stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3, and decreases monocyte adherence to surfaces coated with ICAM-1, a ligand for beta-2 integrins. SDF1A/CXCR4 signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase. Inhibits CXCR4-mediated infection by T-cell line-adapted HIV-1. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells. Has several critical functions during embryonic development; required for

B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation. Stimulates the proliferation of bone marrow-derived B-cell progenitors in the presence of IL7 as well as growth of stromal cell-dependent pre-B-cells (By similarity).

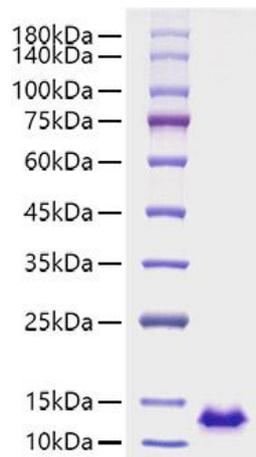
**Synonyms:** IRH, PBSF, SDF1, TLSF, TPAR1, SCYB12, CXCL12

**Purification:** ≥ 95 % as determined by SDS-PAGE.

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

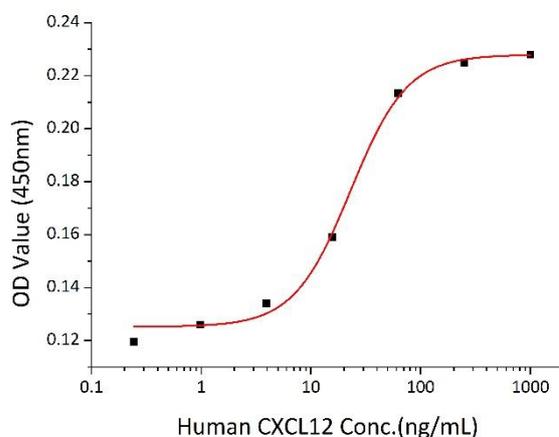
## Validation Data

### Image



### Description

Recombinant Human CXCL12/SDF-1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human CXCL12/SDF-1 Protein chemoattract MOLT4 cells. The ED50 for this effect is 11.47-45.86 ng/mL, corresponding to a specific activity of  $2.18 \times 10^4$  ~  $8.72 \times 10^4$  units/mg.