

**SDF1 alpha Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11241****Specification**

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**SDF1 alpha Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P40224</a>
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	10561

**SDF1 alpha Antibody - Additional Information****Gene ID** 20315

Positive Control	<b>Western Blot: Recombinant proteins</b>
Application & Usage	<b>Western blot: 1-4 µg</b>
<b>Other Names</b>	
Stromal-Cell Derived Factor-1, CXCL12, PBSF	

**Target/Specificity**

SDF1 alpha

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin®, and 50 % glycerol.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

SDF1 alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**SDF1 alpha Antibody - Protein Information**

**Name** Cxcl12

**Synonyms** Sdf1

### **Function**

Chemoattractant active on T-lymphocytes and monocytes but not neutrophils. Activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis. Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway and acts as a scavenger receptor for SDF-1. Binds to the allosteric site (site 2) of integrins and activates integrins ITGAV:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 in a CXCR4-independent manner (By similarity). 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. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells (By similarity). 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 (PubMed:<a href="http://www.uniprot.org/citations/8134392" target="\_blank">8134392</a>).

### **Cellular Location**

Secreted.

### **Tissue Location**

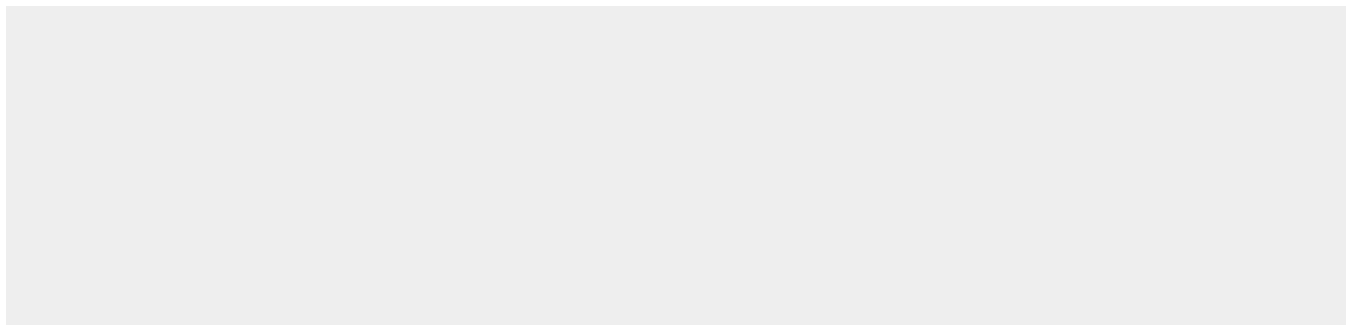
Highest expression levels detected in kidney, liver, spleen and muscle. Isoform Alpha is expressed ubiquitously but at varying levels, while isoform Beta displays tissue-specific expression, with expression detected in kidney, liver, heart, spleen and muscle but not in lung, colon, brain, skin and stomach

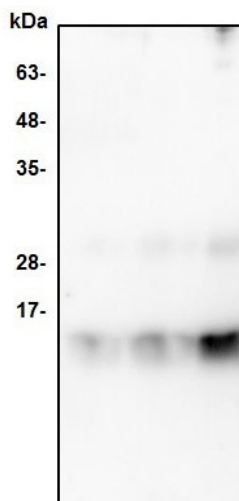
## **SDF1 alpha Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## **SDF1 alpha Antibody - Images**





Western blot with SDF1 alpha antibody: Lane 1: 10 ng Recombinant mouse SDF1 alpha; Lane 2: 20 ng Recombinant mouse SDF1 alpha; Lane 3: 50 ng Recombinant mouse SDF1 alpha

#### **SDF1 alpha Antibody - Background**

SDF-1 alpha and beta are stromal derived CXC chemokines, and signal through the CXCR4 receptor. SDF-1alpha and beta chemoattract B and T cells, and have been shown to induce migration of CD34+ stem cells. Additionally, the SDF-1 proteins exert HIV suppressive activity in cells expressing the CXCR4 receptor.