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

## Specification

### SDF1 alpha Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P40224 |
| Reactivity | **Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **10561** |

### SDF1 alpha Antibody - Additional Information

**Gene ID** 20315

| | |
|---|---|
| Positive Control | **Western Blot: Recombinant proteins** |
| Application & Usage | **Western blot: 1-4 µg** |

**Other Names**
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 Cytomety
- Cell Culture

## SDF1 alpha Antibody - Images

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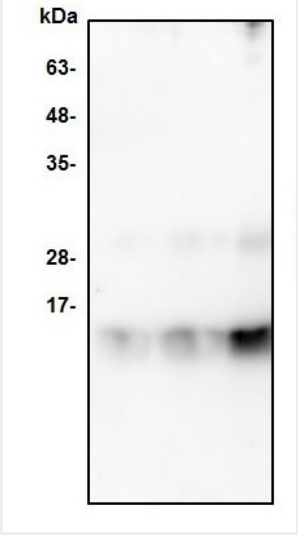


Western blot with SDF1 alpha antibody: Lane 1: 10 ng Recombinant mouse SDF1 alpha; Lane 2: 20 ng Recombinant mouse SDF1 alpha; Lane 3: 50 ng Recombinant mouse SDF1 alpha

**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.