

**SDF-1 Polyclonal Antibody**  
Catalog # AP72408**Specification****SDF-1 Polyclonal Antibody - Product Information**

Application	IF
Primary Accession	<a href="#">P48061</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**SDF-1 Polyclonal Antibody - Additional Information**

Gene ID 6387

**Other Names**

CXCL12; SDF1; SDF1A; SDF1B; Stromal cell-derived factor 1; SDF-1; hSDF-1; C-X-C motif chemokine 12; Intercrine reduced in hepatomas; IRH; hIRH; Pre-B cell growth-stimulating factor; PBSF

**Dilution**

IF~~IF: 1:50-200 Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**SDF-1 Polyclonal Antibody - Protein Information**

Name CXCL12

Synonyms SDF1, SDF1A, SDF1B

**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. SDF-1-beta(3-72) and SDF-1-alpha(3-67) show a reduced chemotactic activity. Binding to cell surface proteoglycans seems to inhibit formation of SDF-1-alpha(3-67) and thus to preserve activity on local sites. 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 (PubMed:<a href="http://www.uniprot.org/citations/29301984" target="\_blank">29301984</a>). 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).

#### Cellular Location

Secreted.

#### Tissue Location

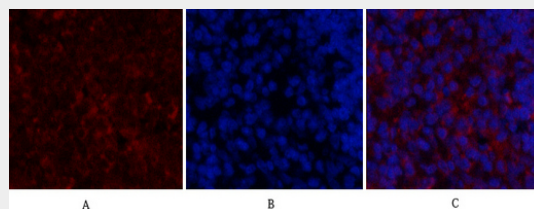
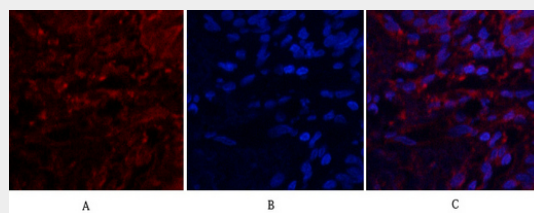
Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in pancreas, with lower levels detected in heart, kidney, liver and spleen

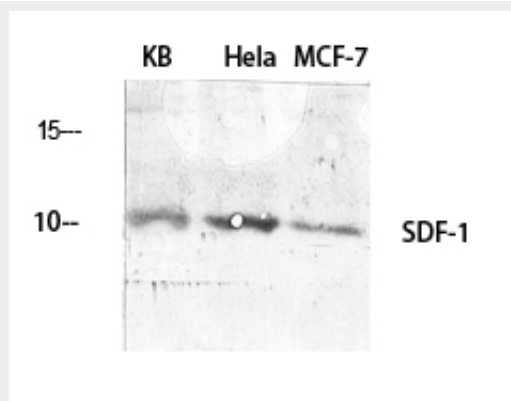
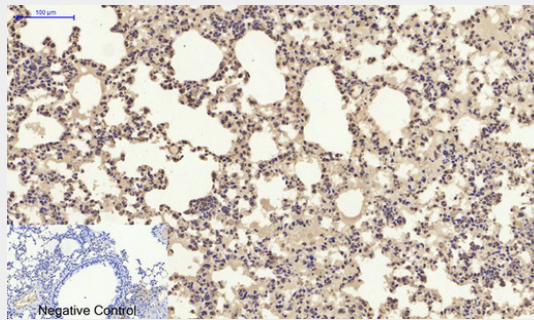
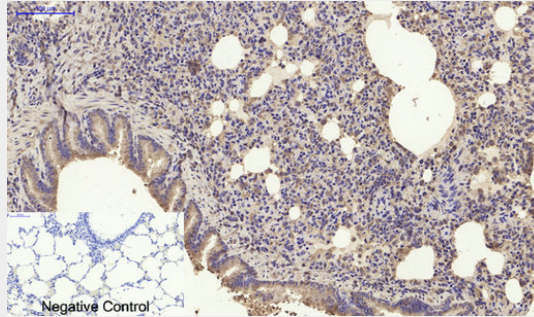
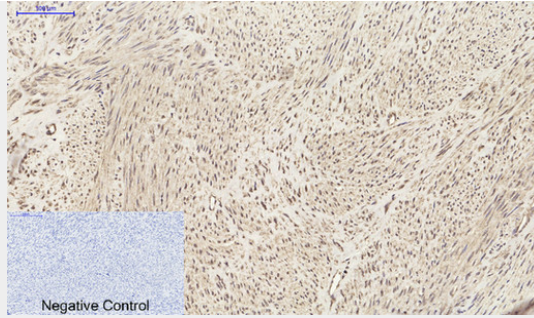
#### SDF-1 Polyclonal Antibody - Protocols

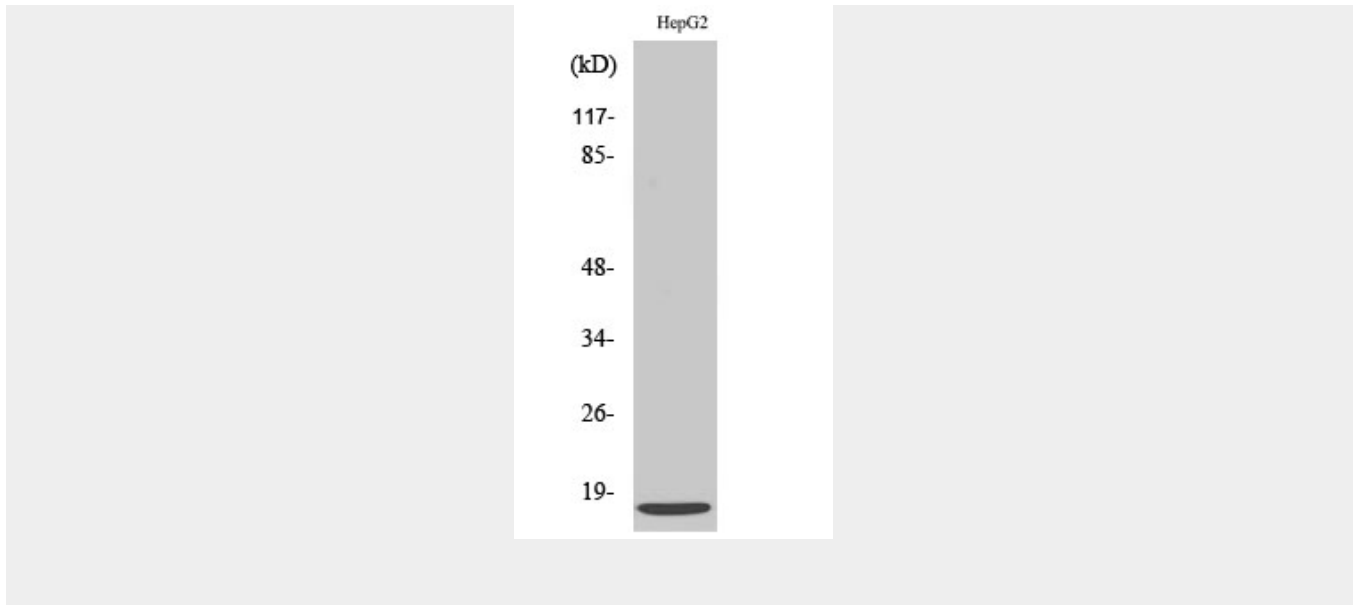
Provided below are standard protocols that you may find useful for product applications.

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

#### SDF-1 Polyclonal Antibody - Images







### SDF-1 Polyclonal Antibody - Background

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. SDF-1-beta(3-72) and SDF-1-alpha(3-67) show a reduced chemotactic activity. Binding to cell surface proteoglycans seems to inhibit formation of SDF-1-alpha(3-67) and thus to preserve activity on local sites. 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 ITGA5:ITGB1 and ITGA4:ITGB1 in a CXCR4-independent manner (PubMed:29301984). 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).