

**Cxcl12 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21418a**

**Specification**

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**Cxcl12 Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB,E                   |
| Primary Accession | <a href="#">P48061</a> |
| Other Accession   | <a href="#">P40224</a> |
| Reactivity        | Human, Mouse           |
| Host              | Rabbit                 |
| Clonality         | polyclonal             |
| Isotype           | Rabbit IgG             |

**Cxcl12 Antibody - Additional Information**

**Gene ID** 6387

**Other Names**

Stromal cell-derived factor 1, SDF-1, 12-O-tetradecanoylphorbol 13-acetate repressed protein 1, TPAR1, C-X-C motif chemokine 12, Pre-B cell growth-stimulating factor, PBSF, Thymic lymphoma cell-stimulating factor, TLSF, Cxcl12, Sdf1

**Target/Specificity**

This Cxcl12 antibody is generated from a rabbit immunized with a Mouse Cxcl12 recombinant protein.

**Dilution**

WB~~1:4000-1:8000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Cxcl12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Cxcl12 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 ITGA4:ITGB3, ITGA4:ITGB1 and ITGA5: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).

#### **Cellular Location**

Secreted.

#### **Tissue Location**

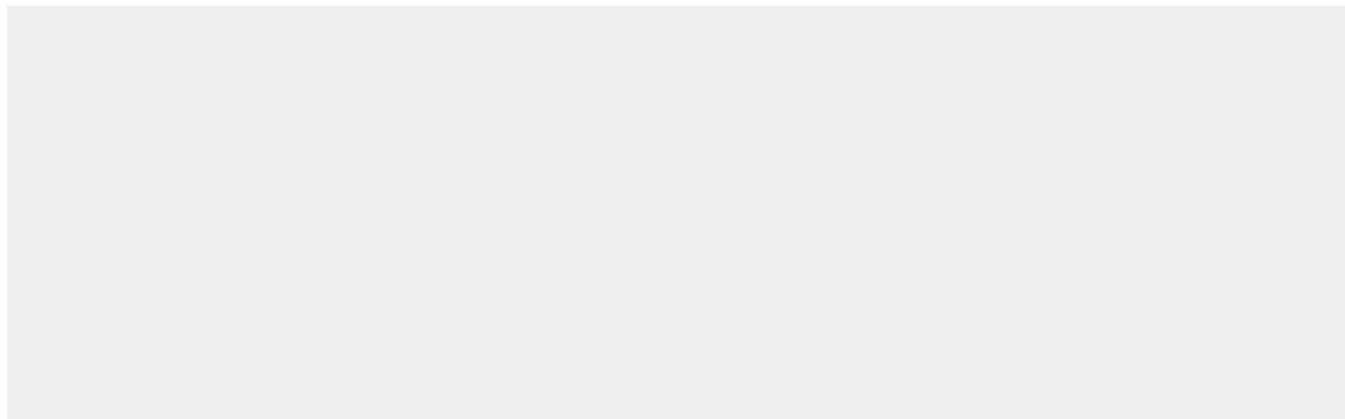
Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in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

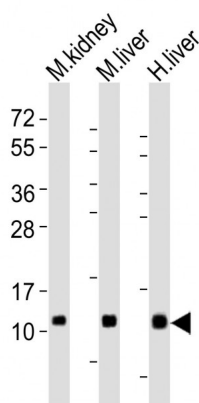
#### **Cxcl12 Antibody - Protocols**

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](#)

#### **Cxcl12 Antibody - Images**





All lanes : Anti-Cxcl12 Antibody at 1:4000-1:8000 dilution Lane 1: mouse kidney lysates Lane 2: mouse liver lysates Lane 3: human liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 11 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

### **Cxcl12 Antibody - Background**

Chemoattractant active on T-lymphocytes, 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. 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.

### **Cxcl12 Antibody - References**

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Jiang W.,et al.Exp. Cell Res. 215:284-293(1994).  
Nagasawa T.,et al.Proc. Natl. Acad. Sci. U.S.A. 91:2305-2309(1994).  
Nomura M.,et al.Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.  
Carninci P.,et al.Science 309:1559-1563(2005).