

# (Mouse) Cxcl12 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP21418a

## Product Information

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|--------------------------|------------------------|
| <b>Application</b>       | WB, E                  |
| <b>Primary Accession</b> | <a href="#">P40224</a> |
| <b>Reactivity</b>        | Human, Rat, Mouse      |
| <b>Host</b>              | Rabbit                 |
| <b>Clonality</b>         | polyclonal             |
| <b>Isotype</b>           | Rabbit IgG             |
| <b>Clone Names</b>       | RB52661                |
| <b>Calculated MW</b>     | 10561                  |

## Additional Information

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|---------------------------|--|
| <b>Gene ID</b>            | 20315  |
| <b>Other Names</b>        | 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 |
| <b>Target/Specificity</b> | This Mouse Cxcl12 antibody is generated from a rabbit immunized with a Mouse Cxcl12 recombinant protein.   |
| <b>Dilution</b>           | WB~~1:4000-1:8000 E~~Use at an assay dependent concentration.  |
| <b>Format</b>             | 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.   |
| <b>Storage</b>            | 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.  |
| <b>Precautions</b>        | (Mouse) Cxcl12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

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|-----------------|---|
| <b>Name</b>     | Cxcl12  |
| <b>Synonyms</b> | Sdf1  |
| <b>Function</b> | 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 ITGA5: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:[8134392](#)).

#### 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

## Background

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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.

## References

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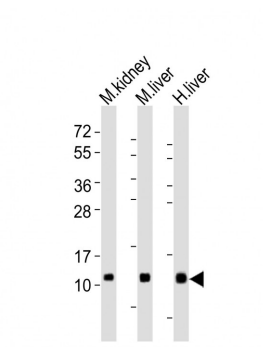
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 Nomura M.,et al.Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.  
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## Images

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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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.