

CXCL12 antibody - middle region
Rabbit Polyclonal Antibody
Catalog # AI16188**Specification**

CXCL12 antibody - middle region - Product Information

Application	WB
Primary Accession	P48061
Other Accession	NM_000609 , NP_000600
Reactivity	Rat, Pig, Bovine, Dog
Predicted	Rat, Pig, Chicken, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	11kDa KDa

CXCL12 antibody - middle region - Additional Information**Gene ID 6387**

Alias Symbol	IRH, PBSF, SDF1, TLSF, SDF1A, SDF1B, TPAR1, SCYB12
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Other Names

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, SDF-1-beta(3-72), SDF-1-alpha(3-67), CXCL12, SDF1, SDF1A, SDF1B

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage

Add 50 ul of distilled water. Final anti-CXCL12 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions

CXCL12 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

CXCL12 antibody - middle region - 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: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

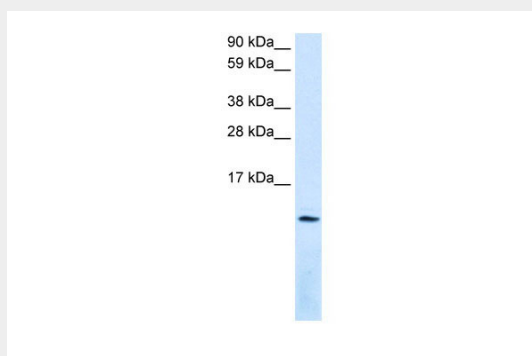
Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in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

CXCL12 antibody - middle region - 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 - middle region - Images



WB Suggested Anti-CXCL12 Antibody Titration: 0.2-1 µg/ml
Positive Control: Human Lung

CXCL12 antibody - middle region - Background

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CXCL12 antibody - middle region - References

Shirozu M.,et al.Genomics 28:495-500(1995).
Yu L.,et al.Gene 374:174-179(2006).
Spotila L.D.,et al.Submitted (OCT-1994) to the EMBL/GenBank/DDBJ databases.
Begum N.A.,et al.Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
Callebaut C.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.