

CXCL12 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13396b

Specification

CXCL12 Antibody (C-term) - Product Information

| | |
|-------------------|-----------------------------------------------------------|
| Application | IHC-P, WB,E |
| Primary Accession | P48061 |
| Other Accession | NP_000600.1 , NP_954637.1 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Calculated MW | 10666 |
| Antigen Region | 64-92 |

CXCL12 Antibody (C-term) - Additional Information

Gene ID 6387

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

Target/Specificity

This CXCL12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 64-92 amino acids from the C-terminal region of human CXCL12.

Dilution

IHC-P~~1:10~50

WB~~1:1000

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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CXCL12 Antibody (C-term) - 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.

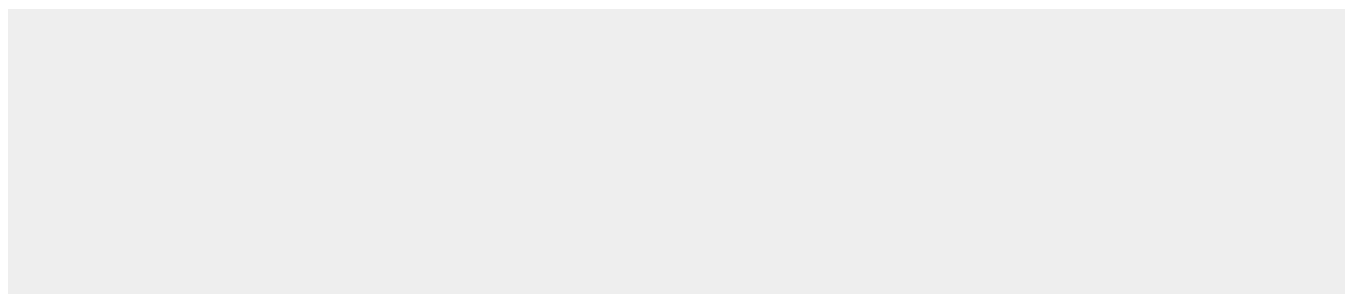
Tissue Location

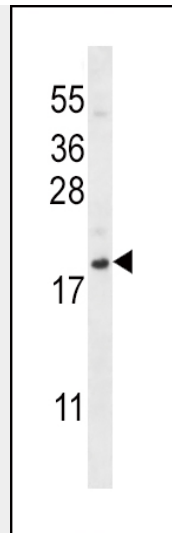
Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in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

CXCL12 Antibody (C-term) - Protocols

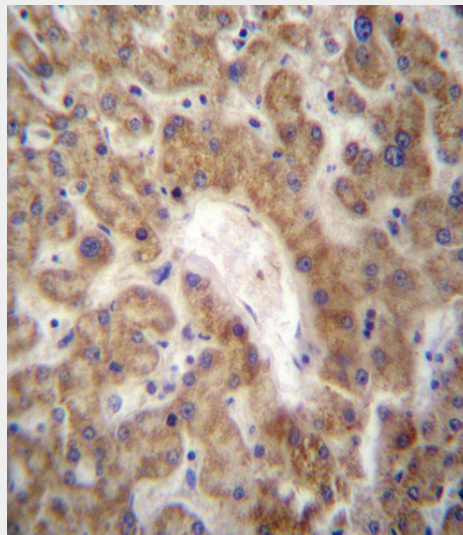
Provided below are standard protocols that you may find useful for product applications.

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

CXCL12 Antibody (C-term) - Images



CXCL12 Antibody (C-term) (Cat. #AP13396b) western blot analysis in NCI-H292 cell line lysates (35ug/lane). This demonstrates the CXCL12 antibody detected the CXCL12 protein (arrow).



CXCL12 Antibody (C-term) (Cat. #AP13396b) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of CXCL12 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

CXCL12 Antibody (C-term) - Background

This gene encodes a stromal cell-derived alpha chemokine member of the intercrine family. This gene product and its receptor CXCR4 can activate lymphocytes and have been implicated in the metastasis of some cancers such as breast cancer. Mutations in this gene are associated with resistance to human immunodeficiency virus type 1 infections. Multiple transcript variants encoding different isoforms have been found for this gene.

CXCL12 Antibody (C-term) - References

Roder, C., et al. Childs Nerv Syst (2010) In press :
Shimizu, Y., et al. Int J Immunopathol Pharmacol 23(2):449-461(2010)

O'Hayre, M., et al. PLoS ONE 5 (7), E11716 (2010) :
Levine, A.J., et al. Neurobehav HIV Med 1, 1-7 (2009) :
Rehman, A.O., et al. Int J Oral Sci 1(3):105-118(2009)