

**CXCL12 Antibody (C-term) Blocking peptide**  
Synthetic peptide  
Catalog # BP13396b**Specification****CXCL12 Antibody (C-term) Blocking peptide - Product Information**Primary Accession [P48061](#)**CXCL12 Antibody (C-term) Blocking peptide - 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**

The synthetic peptide sequence used to generate the antibody AP13396b was selected from the C-term region of CXCL12. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CXCL12 Antibody (C-term) Blocking peptide - Protein Information**

Name CXCL12

**CXCL12 Antibody (C-term) Blocking peptide - 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) Blocking peptide - 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)

**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:<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

### **CXCL12 Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)