

Anti-SDF1 / CXCL12 Antibody
Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17742**Specification**

Anti-SDF1 / CXCL12 Antibody - Product Information

Application	WB, IHC-P, E, Neut
Primary Accession	P48061
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	10666
Dilution	WB~~1:1000 IHC-P~~N/A E~~N/A Neut~~N/A

Anti-SDF1 / CXCL12 Antibody - Additional Information**Gene ID** 6387**Alias Symbol** CXCL12**Other Names**

CXCL12, C-X-C motif chemokine 12, HIRH, IRH, SDF-1, SDF-1b, SDF1A, SDF1B, TPAR1, TLSF-a, TLSF-b, SDF-1a, SDF1, Sdf1alpha, Stromal cell-derived factor 1, TLSF, HSDF-1, PBSF, SCYB12

Target/Specificity

Human SDF-1alpha

Reconstitution & Storage

Immunoaffinity purified

Precautions

Anti-SDF1 / CXCL12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-SDF1 / 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 ITGA5: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

Anti-SDF1 / 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](#)

Anti-SDF1 / CXCL12 Antibody - Images