

SDF-1beta Antibody
Purified Rabbit Polyclonal Antibody
Catalog # ABV11599**Specification**

SDF-1beta Antibody - Product Information

Application	WB
Primary Accession	P40224
Reactivity	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	10561

SDF-1beta Antibody - Additional Information**Gene ID** 20315**Other Names**

SDF-1b, SDF 1b, SDF 1beta, SDF 1 beta, SDF -1, SDF, Stromal cell-derived factor 1;DF-1; C-X-C motif chemokine 12; Pre-B cell growth-stimulating factor; PBSF;SDF-1-beta

Target/Specificity

SDF-1b

Formulation

100 µg (0.5 mg/ml) Protein A purified rabbit anti-SDF-1β polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Background Descriptions**Precautions**

SDF-1beta Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SDF-1beta Antibody - Protein Information**Name** Cxcl12**Synonyms** Sdf1**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. 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: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

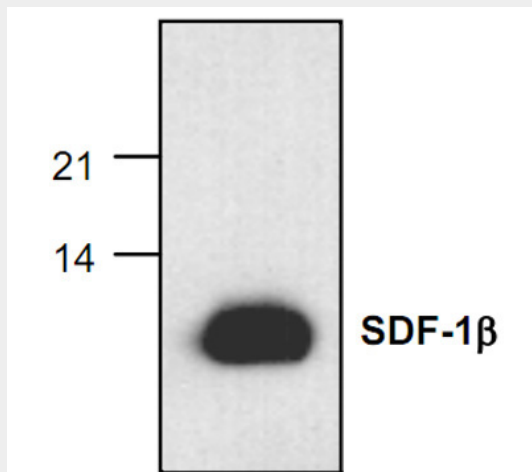
Highest expression levels detected in kidney, liver, spleen and muscle. Isoform Alpha is expressed ubiquitously but at varying levels, while isoform Beta displays tissue-specific expression, with expression detected in kidney, liver, heart, spleen and muscle but not in lung, colon, brain, skin and stomach

SDF-1beta 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](#)

SDF-1beta Antibody - Images



SDF-1beta Antibody - Background

SDF-1 β (stromal cell-derived factor- β), also known as pre-B-cell growth-stimulating factor (PBSF), is a 74-amino acid CXC chemokine originally cloned from a bone marrow stromal cell line. Targeted deletion of SDF-1 gene resulted in defects of B-cell lymphopoiesis and bone marrow myelopoiesis. SDF-1 has been shown to be chemotactic for lymphocytes. In addition, SDF-1 was recently reported to be a ligand for CXCR4 (LESTR/fusin), a co-receptor for HIV-1 entry into T cells. SDF-1 binding to CXCR4 inhibits HIV-1 entry.