




Product datasheet

Anti-SDF1 antibody ab9797

★★★★☆ [14 Abreviews](#) [84 References](#) [4 Images](#)

Overview

Product name	Anti-SDF1 antibody
Description	Rabbit polyclonal to SDF1
Host species	Rabbit
Tested applications	Suitable for: Sandwich ELISA, WB, IHC-P
Species reactivity	Reacts with: Human, Recombinant fragment Predicted to work with: Goat 
Immunogen	Recombinant fragment corresponding to Human SDF1 aa 22-89. Sequence: KPVSLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK Database link: P48061 <div>  Run BLAST with  Run BLAST with </div>
Positive control	IHC-P: Human lung cancer and human kidney tissues; WB: Recombinant human SDF1 protein (ab9798).
General notes	<p>Although some customers have been successful in IHC we no longer batch test in this application.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Lyophilized:Reconstitute with 200µl of sterile water. Please note that if you receive this product in liquid form it has already been reconstituted as described and no further reconstitution is necessary.
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.

Storage buffer	Constituent: PBS
	No preservative, sterile filtered
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	unknown
Light chain type	unknown

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab9797 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

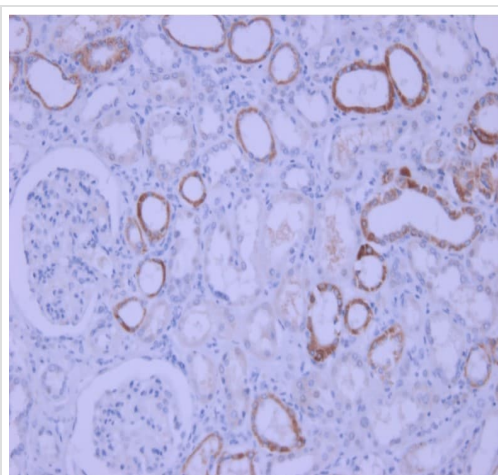
Application	Abreviews	Notes
Sandwich ELISA		Use a concentration of 0.5 - 2 µg/ml. Can be paired for Sandwich ELISA with <u>Biotin Rabbit polyclonal to SDF1 (ab84277)</u> . (using 100 µl/well antibody solution). This antigen affinity purified antibody, in conjunction with <u>ab84277</u> as a detection antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Human SDF1 alpha.
WB		Use at an assay dependent concentration. To detect hSDF-1a by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant hSDF-1a is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.
IHC-P	★★★★★ (8)	Use a concentration of 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Function Chemoattractant active on T-lymphocytes, 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. 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. 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.

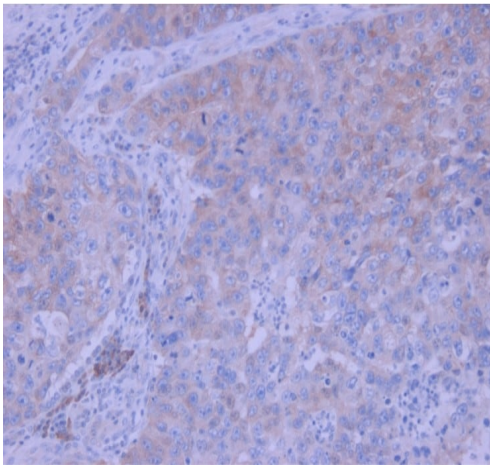
Tissue specificity	Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen. Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in pancreas, with lower levels detected in heart, kidney, liver and spleen.
Sequence similarities	Belongs to the intercrine alpha (chemokine CxC) family.
Developmental stage	Isoform Alpha is ubiquitously expressed in fetal tissues. Isoform Beta and isoform Delta have more limited expression patterns, with highest levels detected in fetal spleen and fetal liver, respectively. Isoform Gamma and isoform Theta are weakly detected in fetal kidney.
Post-translational modifications	Processed forms SDF-1-beta(3-72) and SDF-1-alpha(3-67) are produced after secretion by proteolytic cleavage of isoforms Beta and Alpha, respectively. The N-terminal processing is probably achieved by DPP4. Isoform Alpha is first cleaved at the C-terminus to yield a SDF-1-alpha(1-67) intermediate before being processed at the N-terminus. The C-terminal processing of isoform Alpha is reduced by binding to heparin and, probably, cell surface proteoglycans.
Cellular localization	Secreted.

Images



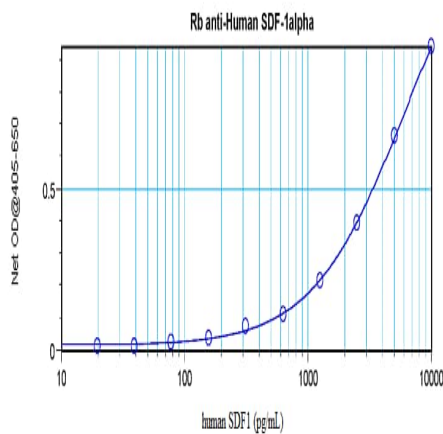
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling SDF1 with ab9797 at 2 µg/mL (45 minute incubation at room temperature). Heat mediated antigen retrieval was performed using a buffer at pH 6. An HRP-labeled polymer detection system was used with a DAB chromogen.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SDF1 antibody (ab9797)



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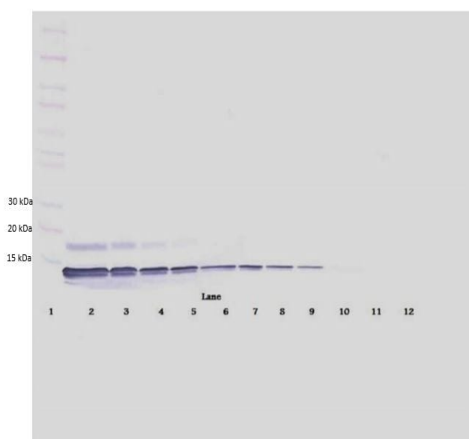
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung cancer tissue labelling SDF1 with ab9797 at 2 µg/mL (45 minute incubation at room temperature). Heat mediated antigen retrieval was performed using a buffer at pH 6. An HRP-labeled polymer detection system was used with a DAB chromogen.



Sandwich ELISA - Anti-SDF1 antibody (ab9797)

ELISA - Anti-IL-1 beta antibody (ab9797)

Sandwich ELISA detecting SDF1 using ab9797 at a concentration of 2.0 µg/ml.



Western blot - Anti-SDF1 antibody (ab9797)

To detect human SDSF1 by Western Blot analysis, **ab9739** can be used at a concentration of 0.1-0.2 µg/ml. When used in conjunction with compatible development reagents, the detection limit for recombinant human SDF1 is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.

Lanes 1-11: 250, 125, 62.5, 31.25, 15.625, 7.8, 3.9, 1.95, 0.975, 0.4875 and 0.24 ng recombinant human SDF1, respectively.

Non-reducing conditions.

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