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Product datasheet

Biotin Anti-SDF1 antibody ab84277

Overview

Product name	Biotin Anti-SDF1 antibody
Description	Biotin Rabbit polyclonal to SDF1
Host species	Rabbit
Conjugation	Biotin
Specificity	The immunogen is 100% identical across P48061-1 to P48061-6.
Tested applications	**Suitable for:** Sandwich ELISA, WB
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein corresponding to Human SDF1 aa 22-89. Produced from sera of rabbits pre-immunized with highly pure recombinant Human SDF-1a. Sequence: KPVSLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK Database link: **P48061** □ **Run BLAST with** □ **Run BLAST with**
General notes	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. 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

Properties

Form	Lyophilized:Centrifuge vial prior to opening. Reconstitute in sterile PBS containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Purification notes	ab84277 was purified by affinity chromatography and then biotinylated.It is sterile filtered.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab84277 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 at an assay dependent concentration. Can be paired for Sandwich ELISA with **Rabbit polyclonal to SDF1 (ab9797)**. To detect Human SDF-1 alpha by sandwich ELISA (using 100 ul/well antibody solution) a concentration of 0.25 - 1.0 ug/ml of this antibody is required. This biotinylated polyclonal antibody, in conjunction with **ab9797** as a capture antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant Human SDF-
WB		Use at an assay dependent concentration.

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.

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