

Product datasheet

Recombinant cat SDF1 protein ab125767

概述

产品名称	重组猫SDF1蛋白
蛋白长度	Full length protein

描述

性质	Recombinant
来源	Escherichia coli

氨基酸序列

Accession	O62657
种属	Cat
序列	KPVSLSYRCPFRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVC IDPKLKWIQEYLEKALNKRFKM
分子量	9 kDa
氨基酸	22 to 93

技术指标

Our [Abpromise guarantee](#) covers the use of **ab125767** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

生物活性	The activity is determined by its ability to chemoattract Human T cells at 10 - 75 ng/ml
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应用	Functional Studies SDS-PAGE
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内毒素水平	< 1.000 Eu/μg
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纯度	>= 97 % SDS-PAGE.
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形式	Lyophilised
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补充说明	Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.
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制备和贮存

稳定性和存储

Shipped at 4°C. Store at -20°C.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

复溶

Centrifuge vial before opening. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1mg/mL, which can be further diluted into other aqueous solutions.

常规信息

功能

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.

组织特异性

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.

序列相似性

Belongs to the intercrine alpha (chemokine CxC) family.

发展阶段

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.

翻译后修饰

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.

细胞定位

Secreted.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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