

Product datasheet

Recombinant human SDF1 alpha protein (Animal Free) ab217453

Description

Product name	Recombinant human SDF1 alpha protein (Animal Free)
Biological activity	Determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration of 20-80 ng/ml.
Purity	> 98 % SDS-PAGE. > 98 % by HPLC.
Expression system	Escherichia coli
Accession	<u>P48061</u>
Protein length	Full length protein
Animal free	Yes
Nature	Recombinant
Species	Human
Sequence	KPVLSLYRCPGRFFESHVARANVKHLKILNTPNCALQIVAR LKNNNRQVC IDPKLKWIQEYLEKALNK
Predicted molecular weight	8 kDa
Amino acids	22 to 89
Additional sequence information	This product is for the mature full length protein. The signal peptide is not included.

Specifications

Our **Abpromise guarantee** covers the use of **ab217453** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE HPLC
Form	Lyophilized

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
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This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

For lot specific reconstitution information please contact our Scientific Support Team.

General Info

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. 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 through its receptor, CXCR4, 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.

Sequence similarities

Belongs to the intercrine alpha (chemokine CxC) family.

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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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