

SDF1a - Stromal cell-derived factor 1

Product specification

Acronym: SDF-1 α

Class: Ligand

Origin: Human

Molecular weight: 7 kDa

Application: Screening & display technologies, Bioassays, Structural biology.

Purity: >98%

Activity: Proven

Length: Full Length

TMD: 0

Biological function: Chemoattractant activity

Product description

SDF-1 α is a chemoattractant active on T-lymphocytes, monocytes, but not neutrophils. SDF-1 α 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 α acts as a positive regulator of monocyte migration and a negative regulator of monocyte adhesion via the LYN kinase. SDF-1 α 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.

Protein Source: SDF-1 α wild type protein

Fig.1: AA sequence of SDF-1 α protein

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10      20      30      40      50
MNAKVVVVLV LVLTA LCLSD GKPVSLSYRC PCRFESHVA RANVKHLKIL
60      70      80
NTPNCAI QTV ARI KNNNRQV CTDPKI KWTQ FYI FKAI NK

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Affinity Tag: Histidine tag fused to the N-terminal end of the protein.

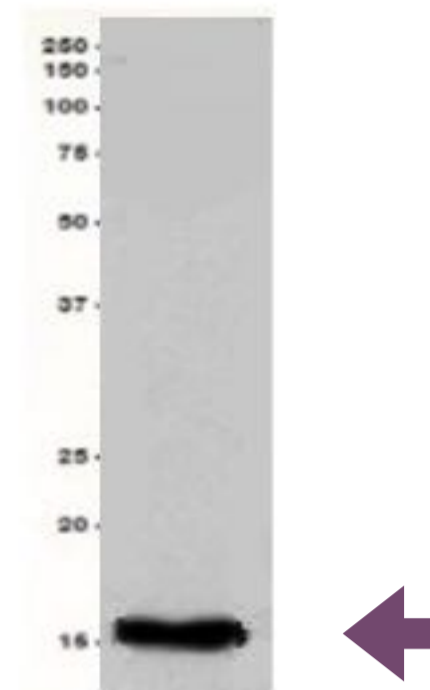
Production conditions: SDF-1 α is expressed in a cell-free expression system. 100 μ g can be produced and qualified in about 1 week.

Quality analysis

Purity: Typically > 98% as determined by SDS-Page and Coomassie Blue staining.

Purification procedure: As standard, SDF-1 α are purified on a nickel-nitrilotriacetic acid resin.

Fig.2: SDF-1 α after purification (Western blot identification).



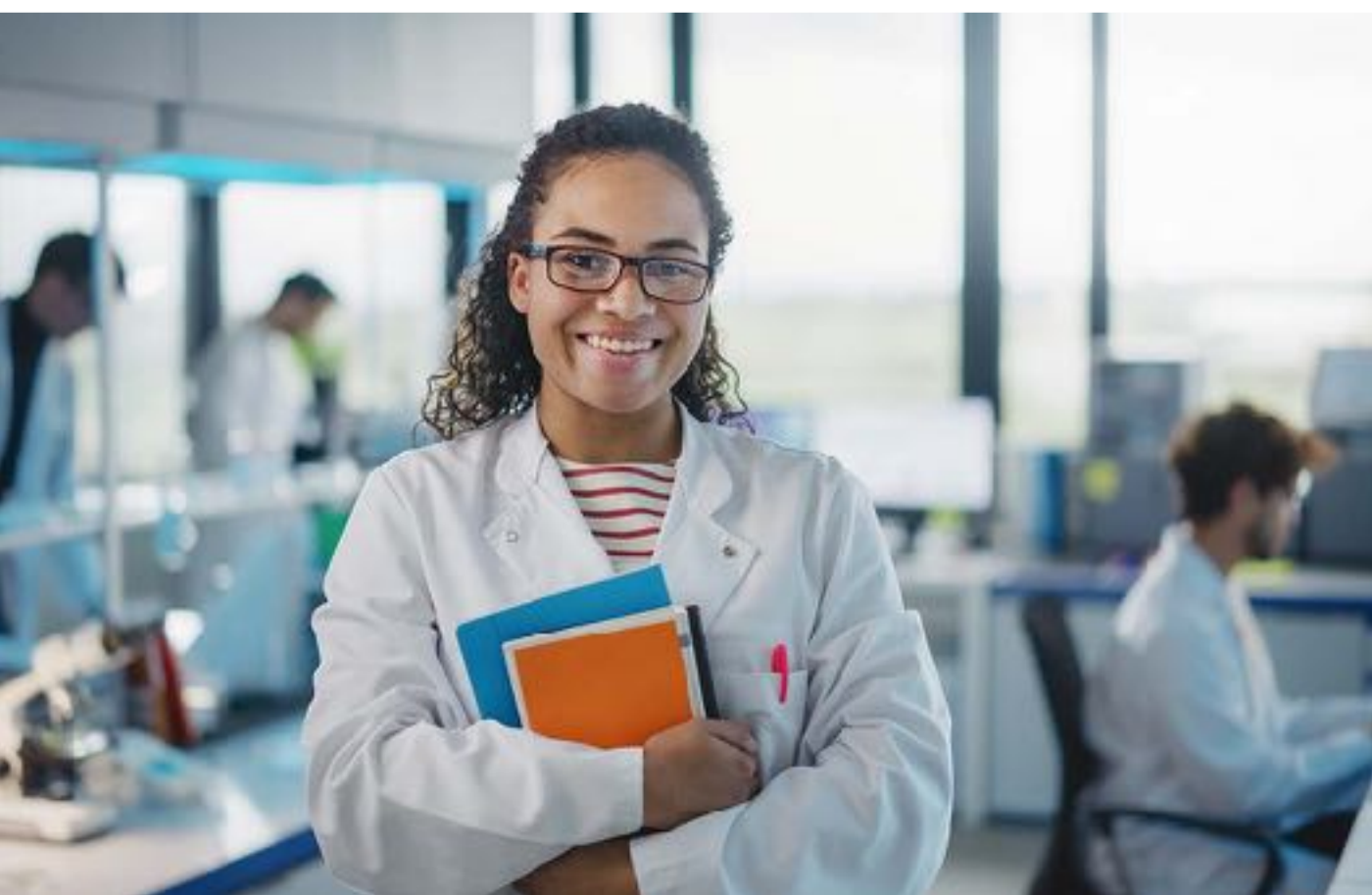
Formulation

Buffer: Available in Tris 50mM, pH 7.5. Other buffers or customized formulation can be provided upon request.

Storage/Stability: Store at +4°C for up to one week or several months at -80°C. Aliquot for storage. Do not freeze-thaw after aliquoting.

Use restrictions: For life science research use only.

Available sizes: 10 μ g, 20 μ g, 100 μ g, 200 μ g, 500 μ g, bulk



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any additional information?
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