



Recombinant Human His-SDF-1 α protein

E13-005

Catalog Number:	E13-005-1, E13-005-2
Amount:	10 μ g, 50 μ g
Product description:	Human His-SDF-1 α produced in <i>E. coli</i> is non-glycosylated polypeptide chain containing 96 amino acids (28-96 a.a; predicted MW=11.1kDa). The SDF-1 α is fused to 28 amino acid His-tag at N-terminal. The recombinant protein was purified by Ni-NTA affinity column and followed by gel filtration chromatography. Purity was greater than 98% by Coomassie blue staining SDS-PAGE (Figure A). The protein was active in ELISA assay with an EC50 of about 179nM (Figure B).
Background:	SDF-1 (stromal cell-derived factor-1), also called CXCL12, is small cytokine belonging to the chemokine family. The two forms, SDF-1 α /CXCL12a and SDF-1 β /CXCL12b, are produced in cells by alternate splicing of the same gene. SDF-1 signal through its receptor CXCR4, and have been shown to chemoattract B and T cells, induce migration of CD34+ stem cells. Additionally, SDF-1 and its receptor CXCR4 are involved in human disease states (e.g. HIV/AIDS) and cancer metastasis.
GenBank accession number:	NP_954637
Amino acid sequence:	MGSSHHHHHSSGLVPRGSHMENLYFQGKPVLSYRCPGRFFESHVARANVKHLKILNTPN CALQIVARLKNNNRQVCIDPKLKWIQEYLEKALNK
Activity:	ELISA to measure SDF-1 binding activity (Figure B). SDF-1 was immobilized on the plate and was detected by anti SDF-1 antibody (Santacruz sc-6193).
Formulation:	Lyophilized from a 0.22 μ m filtered solution at a concentration of 1mg/ml in PBS.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water to a concentration of 1.0 mg/ml.
Shipping&Stability:	The Product is shipped at ambient temperature. Upon reconstitution, the preparation is stable for up to 1 month at 2-8 $^{\circ}$ C. For long term storage, apportion the reconstituted preparation into working aliquots and store at -20 $^{\circ}$ C to -70 $^{\circ}$ C. Avoid repeated freeze/thaw cycles.

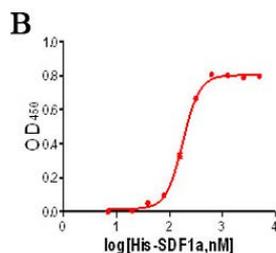
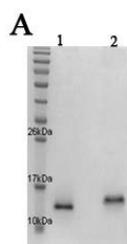


Figure A. The purity of recombinant protein His-SDF-1 α (E13-005). 12 % SDS-PAGE, 1.2 μ g protein with (lane 1) and without (lane 2) DTT.

Figure B. ELISA to measure the activity of His-SDF-1 α (E13-005)

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