



## Recombinant Human His-SDF-1 $\beta$ protein

E13-001

<b>Catalog Number:</b>	E13-001-1, E13-001-2
<b>Amount:</b>	10 $\mu$ g, 50 $\mu$ g
<b>Product description:</b>	Human N-his-tag SDF-1 $\beta$ produced in E. coli is non-glycosylated polypeptide chain containing 100 amino acids (28-100 a.a; predicted MW=11.67kDa). The SDF-1 $\beta$ 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 95% by Coomassie blue staining SDS-PAGE (Figure A). The protein was active in ELISA assay with an EC50 of about 160nM (Figure B) and the measure MW in LC-MS was 11548 Dalton, in agreeing with its theoretic molecular weight (Figure C).
<b>Background:</b>	SDF-1 (stromal cell-derived factor-1), also called CXCL12, is small cytokine belonging to the chemokine family. The two forms, SDF-1 alpha/CXCL12a and SDF-1 $\beta$ /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.
<b>GenBank accession number:</b>	NP_000600
<b>Amino acid sequence:</b>	MGSSHHHHHSSGLVPRGSHMENLYFQGKPVLSYRCPFRFFESHVARANVKHLKILNTPN CALNNRQVCIDPKLKWIQEYLEKALNKRFKM
<b>Activity:</b>	ELISA to measure SDF-1 binding activity (Figure 2). SDF-1 was immobilized on the plate and was detected by anti SDF-1 antibody (Santacruz sc-6193).
<b>Formulation:</b>	Lyophilized from a 0.22 $\mu$ m filtered solution at a concentration of 1mg/ml in PBS.
<b>Reconstitution:</b>	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.
<b>Shipping&amp;Stability:</b>	he 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

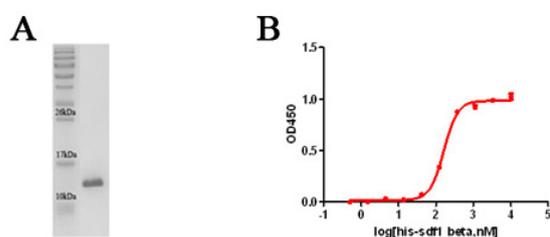


Figure A. The purity of recombinant protein his-tagSDF-1  $\beta$  (E13-001). 15% SDS-PAGE, 1.2 $\mu$ g of SDF-1 $\beta$

Figure B. ELISA to measure the activity of His-SDF-1  $\beta$  (E13-001)

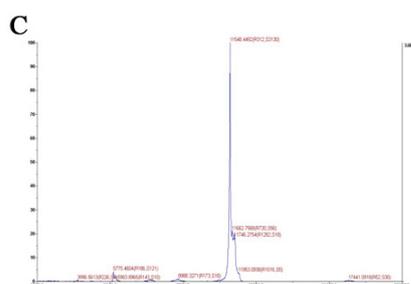


Figure C. The molecular weight of SDF-1  $\beta$  was 11548 Dalton in LC-MS spectrum analysis, consistent with its calculated MW.

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