



Recombinant Human SDF-1 β protein

E13-002

Catalog Number:	E13-002-1, E13-002-2
Amount:	10 μ g, 50 μ g
Product description:	Human SDF-1 β produced in E. coli is non-glycosylated polypeptide chain containing 74 amino acids (3-74 a.a.; predicted MW=8.7kDa.). The recombinant protein was purified by cation exchange chromatography and gel filtration chromatography. Purity is greater than 98% by SDS-PAGE and Coomassie blue staining (Figure A). The protein was active in ELISA assay with an EC ₅₀ of about 80nM (Figure B) and the measured MW in LC-MS was 8802 Dalton, in agreement with its theoretic molecular weight (Figure C).
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_000600
Amino acid sequence:	MGKPVLSYRCPGRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWIQEYLEKALNKRFSK
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°C. For long term storage, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles

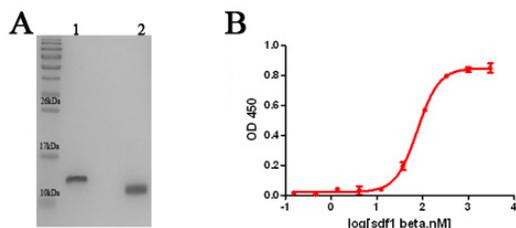


Figure A. The purity of recombinant protein SDF-1 β (E13-002). 15 % SDS-PAGE, 1.2 μ g protein without (lane 1) and with (lane 2) DTT.

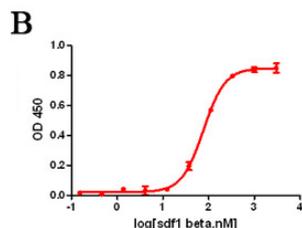


Figure B. ELISA to measure the activity of SDF-1 β (E13-002)

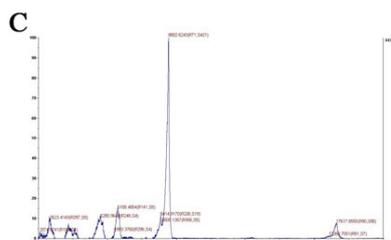


Figure C. The molecular weight of SDF-1 β was 8802 Dalton in LC-MS spectrum analysis, consistent with its calculated MW.

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