

Stromal Cell Derived Factor 1 Active Protein | SDF1 active protein

Active Stromal Cell Derived Factor 1 (SDF1)

CATALOG #
AAA150074

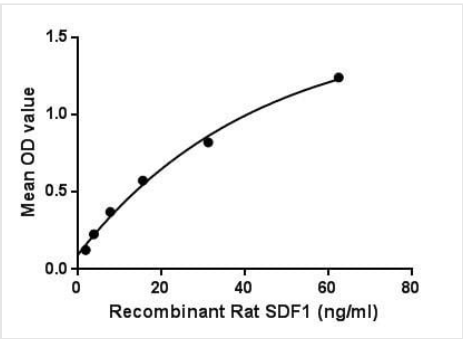
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Stromal Cell Derived Factor 1; Active Stromal Cell Derived Factor 1 (SDF1); CXCL12; PBSF; P-BSF; SCYB12; SDF1-A; SDF1-B; SDF1A; SDF1B; TLSF-A; TLSF-B; TPAR1; Pre-B Cell Growth-Stimulating Factor; Chemokine C-X-C-Motif Ligand 12; SDF1 active protein

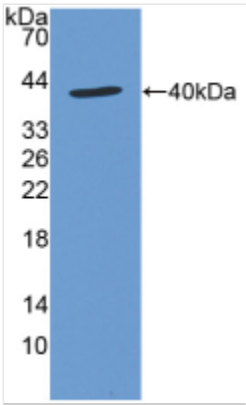
PRODUCT SPECIFICATIONS

Purity/Purification	>95%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Gly21~Lys89
Sequence Length	89
Applicable Applications for SDF1 active protein	Activity Assay, Cell Culture
Species	Rat
Tag	N-terminal His and GST Tag
Isoelectric Point	8.6
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

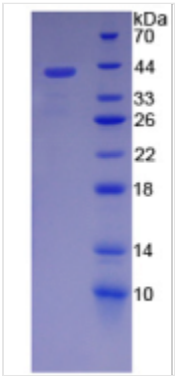


Bioactivity

Figure. The binding activity of SDF1 with CCR1The stromal cell-derived factor 1 (SDF1), also known as C-X-C motif chemokine 12 (CXCL12), is a chemokine protein. SDF1 is strongly chemotactic for lymphocytes. During embryogenesis, it directs the migration of hematopoietic cells from fetal liver to bone marrow and the formation of large blood vessels. CXCL12 is also chemotactic for mesenchymal stem cells and is expressed in the area of inflammatory bone destruction, where it mediates their suppressive effect on osteoclastogenesis. Besides, Chemokine C-C-Motif Receptor 1 (CCR1) has been identified as an interactor of SDF1, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat SDF1 and recombinant rat CCR1. Briefly, SDF1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100L were then transferred to CCR1-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-SDF1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of SDF1 and CCR1 was shown in Figure 1, and this effect was in a dose dependent manner.



WB (Western Blot)
Figure. Western Blot



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for SDF1 active protein	Cytokine; Tumor immunity; Infection immunity
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NCBI AND UNIPROT INFORMATION

NCBI GI #	11559933
NCBI GeneID	24772
NCBI Accession #	NP_071513.1
NCBI GenBank Nucleotide #	NP_071513.1
UniProt Accession #	Q9QZD1

Molecular Weight	Predicted Molecular Mass: 38.0kDa Accurate Molecular Mass: 40kDa
NCBI Official Full Name	stromal cell-derived factor 1 isoform alpha
NCBI Official Synonym Full Names	C-X-C motif chemokine ligand 12
NCBI Official Symbol	Cxcl12
NCBI Official Synonym Symbols	Sdf1
NCBI Protein Information	stromal cell-derived factor 1
UniProt Protein Name	Chemokine (C-X-C motif) ligand 12 (Stromal cell-derived factor 1)
UniProt Gene Name	Cxcl12
UniProt Entry Name	Q9QZD1_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/sdf1-active-protein/stromal-cell-derived-factor-1/150074>