Active Stromal Cell Derived Factor 1 (SDF1) Instruction Manual

SBPA077Ra01

Rattus norvegicus (Rat)

Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	8.6
Applications	Cell culture; Activity Assays.

ACTIVITY TEST

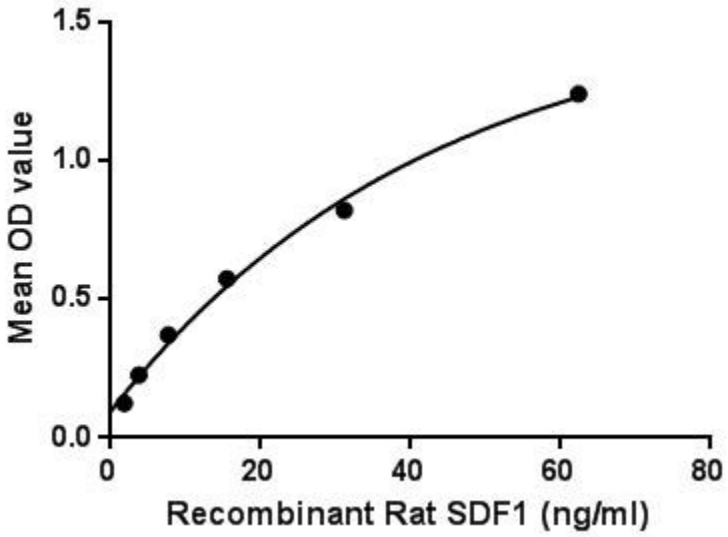

Figure. The binding activity of SDF1 with CCR1

The 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 100µL 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 50µL 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.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

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°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.

Image

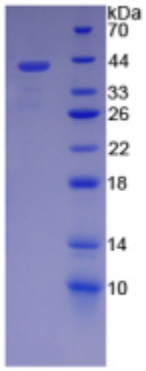

Figure. SDS-PAGE

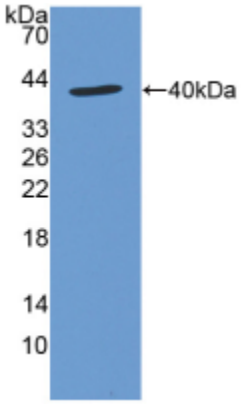

Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.