# SDF-4 (K-13): sc-47373



The Power to Question

## **BACKGROUND**

The C-X-C or  $\alpha$  chemokine family is characterized by a pair of cysteine residues separated by a single amino acid and primarily functions as chemo-attractants for neutrophils. The C-X-C family includes IL-8, NAP-2, MSGA, stromal cell derived factor-1 (SDF-1) and SDF-4. SDF-1 was originally described as a pre-B cell stimulatory factor, but has now been shown to function as a potent chemo-attractant for T cells and monocytes but not neutrophils. SDF-4, also designated Cab45, contains six EF-hand calciumbinding motifs. SDF-4 is ubiquitously expressed and localizes to the Golgi where it may regulate calcium-dependent activities.

## **REFERENCES**

- Deng, H., Liu, R., Ellmeier, W., Choe, S., Unumatz, D., Burkhart, M., Di Marzio, P., Marmon, S., Sutton, R.E. and Hill, C.M. 1996. Identification of a major co-receptor for primary isolates of HIV-1. Nature 381: 661-666.
- Nagasawa, T., Hirota, S., Tachibana, K., Takakura, N., Nishikawa, S., Kitamura, Y., Yoshida, N., Kikutani, H. and Kishimoto, T. 1996. Defects of B-cell lymphopoiesis and bone-marrow myelopoiesis in mice lacking the CXC chemokine PBSF/SDF-1. Nature 382: 635-638.
- Bleul, C.C., Farzan, M., Choe, H., Parolin, C., Clark-Lewis, I., Sodroski, J. and Springer, T.A. 1996. The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and blocks HIV-1 entry. Nature 382: 829-833.
- Laterveer, L., Lindley, I.J., Heemskerk, D.P., Camps, J.A., Pauwels, E.K., Willemze, R. and Fibbe, W.E. 1996. Rapid mobilization of hematopoietic progenitor cells in rhesus monkeys by a single intravenous injection of interleukin-8. Blood 87: 781-788.
- Scherer, PE., Lederkremer, GZ., Williams, S., Fogliano, M., Baldini, G. and Lodish, HF. 1996. Cab45, a novel (Ca<sup>2+</sup>)-binding protein localized to the Golgi lumen. J. Cell Biol. 133: 257-268.

## CHROMOSOMAL LOCATION

Genetic locus: SDF4 (human) mapping to 1p36.33; Sdf4 (mouse) mapping to 4 E2.

## **SOURCE**

SDF-4 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SDF-4 of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47373 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

SDF-4 (K-13) is recommended for detection of mature SDF-4 and Cab45 precursor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SDF-4 (K-13) is also recommended for detection of mature SDF-4 and Cab45 precursor in additional species, including porcine.

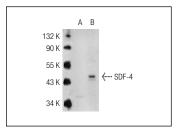
Suitable for use as control antibody for SDF-4 siRNA (h): sc-61508 and SDF-4 siRNA (m): sc-61509; and as shRNA Plasmid control antibody for SDF-4 shRNA Plasmid (h): sc-61508-SH and SDF-4 shRNA Plasmid (m): sc-61509-SH.

Molecular Weight of SDF-4: 45 kDa.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SDF-4 (K-13): sc-47373. Western blot analysis of SDF-4 expression in non-transfected: sc-110760 (**A**) and human SDF-4 transfected: sc-112321 (**B**) 293 whole

### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

MONOS Satisfation Guaranteed

Try **SDF-4 (E-12): sc-393930**, our highly recommended monoclonal alternative to SDF-4 (K-13).

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