

Purified Rabbit Anti-rat SDF-1

Catalog Number: TP202

Lot Number: 102017

Content: Protein A purified rabbit IgG, 200 µg, with 0.1% sodium azide, lyophilized.

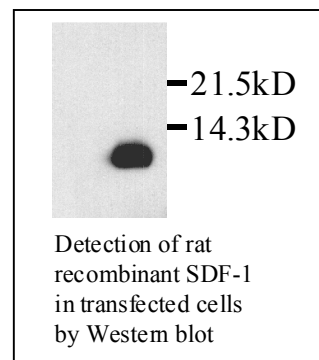
(Reconstitute to 1 mg/ml by adding 200 µl PBS)

Product Description and Usage: For research use only. This polyclonal antibody, which reacts with both mouse and rat SDF-1β, was generated using *E. coli*-expressed mouse SDF-1β as an immunogen. The tested titer for Western blot is 1:1,000, immunoprecipitation, 1:300-500; and immunohistochemistry, 1:100-500.

Cross-reactivity to SDF-1β of other species has not been determined.

Storage Condition: 4 C for short term storage or -20 C in small aliquots for long term storage. Avoid repeated freeze and thaw.

Background: SDF-1β (stromal cell-derived factor-β)¹, also known as pre-B-cell growth-stimulating factor (PBSF)², is a 74-amino acid CXC chemokine originally cloned from a bone marrow stromal cell line¹. Targeted deletion of SDF-1 gene resulted in defects of B-cell lymphopoiesis and bone marrow myelopoiesis in mice³. SDF-1 has been shown to be chemotactic for lymphocytes⁴. In addition, SDF-1 was recently reported to be a ligand for CXCR4 (LESTR/fusin), a co-receptor for HIV-1 entry into T cells^{5,6}.



SDF-1 binding to CXCR4 inhibits HIV-1 entry^{5,6}.

References:

1. Tashiro, K. et al. (1993) Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins. *Science* 261:600-603.
2. Nagasawa, T et al. (1994) Molecular cloning and structure of a pre-B-cell growth-stimulating factor. *Proc. Natl. Acad. Sci. USA* 91:2305-2309.
3. Nagasawa, T. et al. (1996) Defects of B-cell lymphopoiesis and bone-marrow myelopoiesis in mice lacking the CXC chemokine PBSF/SDF-1. *Nature* 328:635-638.
4. Bleul, C.C. et al. (1996) A highly efficacious lymphocyte chemoattractant, stromal cell-derived factor 1 (SDF-1). *J. EXP. Med.* 184:1101-1109.
5. Bleul, C.C. et al. (1996) The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and blocks HIV-1 entry. *Nature* 382:829-833.
6. Oberlin E. et al. (1996) The CXC chemokine SDF-1 is the ligand for LESTR/fusin and prevents infection by C-cell-line-adapted HIV-1. *Nature* 382:833-835.

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