

## Anti-Mouse/Rat CXCL12 alpha (SDF-1 alpha) Purified

Catalog Number: 14-7992

Also Known As: SDF-1 alpha, SDF-1a, SDF1a

RUO: For Research Use Only

### Product Information

Contents: Anti-Mouse/Rat CXCL12 alpha (SDF-1 alpha) Purified

 Catalog Number: 14-7992

Clone: Polyclonal

Host/Isotype: Rabbit IgG

Formulation: aqueous buffer, 0.09% sodium azide, contains stabilizer if necessary. The 50 µg size of this antibody is supplied in liquid form. The 200 µg size of this antibody may be supplied in liquid or lyophilized powder forms.



Temperature Limitation: Store at 2-8°C.



Batch Code: Refer to Vial



Use By: Refer to Vial



Caution, contains Azide

### Description

The polyclonal antibody reacts with both mouse and rat SDF-1α and was generated using *E. coli*-expressed mouse SDF-1α as an immunogen. SDF-1α (stromal cell-derived factor-1 alpha), also known as pre-B-cell growth-stimulating factor (PBSF), is a 70-amino acid CXC chemokine originally cloned from a bone marrow stromal cell line. Targeted deletion of the SDF-1 gene resulted in defects of B-cell lymphopoiesis and bone marrow myelopoiesis. SDF-1 has been shown to be chemotactic for lymphocytes. 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. SDF-1 binding to CXCR4 inhibits HIV-1 entry.

### Applications Reported

This polyclonal has been reported for use in immunoblotting (WB), immunoprecipitation, and immunohistochemistry. Cross-reactivity to SDF-1α of other species has not been determined.

### Applications Tested

To achieve best results, titrate antibody by dilution for each application as follows:

Western Blot 1:1000

Immunoprecipitation 1:300-500

Immunohistochemistry 1:100-500

### References

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- 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.
- 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.
- Bleul, C.C. et al. 1996. A highly efficacious lymphocyte chemoattractant, stromal cell-derived factor 1 (SDF-1). *J. EXP. Med.* 184:1101-1109.
- 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.
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- Jung Y, Ryu K, et al. 2006. Syngenic bone marrow cells restore hepatic function in carbon tetrachloride-induced mouse liver injury. *Stem Cells Dev.* 15(5):687-95. (IHC paraffin, PubMed)
- Otsuru S, Tamai K, et al. 2008. Circulating bone marrow-derived osteoblast progenitor cells are recruited to the bone-forming site by the CXCR4/stromal cell-derived factor-1 pathway. *Stem Cells*. 26(1):223-34. (IHC frozen, PubMed)

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