

Datasheet: AHP1211

Description:	GOAT ANTI HUMAN SDF-1 BETA
Specificity:	SDF-1 BETA
Other names:	CXCL12b
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			0.5ug/ml
Immunoprecipitation			■	
Western Blotting	■			0.1 - 0.2ug/ml

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified IgG - lyophilised
Reconstitution	Reconstitute with 0.1ml distilled water. For long term storage the addition of 0.09% sodium azide is recommended.
Antiserum Preparation	Antisera to human SDF-1 beta were raised by repeated immunisations of goats with highly purified antigen. Purified IgG prepared by affinity chromatography.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Recombinant human SDF-1 beta.

**External Database
Links**

UniProt:

[P48061](#)

[Related reagents](#)

Entrez Gene:

[6387](#)

CXCL12

[Related reagents](#)

Synonyms

SDF1, SDF1A, SDF1B

Specificity

Goat anti Human SDF-1 beta antibody recognizes human SDF-1 beta, otherwise known as CXCL12b, a 72 amino acid stromal cell derived CXC chemokine, which arises from alternative splicing of the SDF-1 gene. The two isoforms, SDF-1 alpha and SDF-1 beta, share an identical amino acid sequence, except for an additional four residues in the C-Terminal region of the beta isoform.

SDF-1 binds with high-affinity to the G protein-coupled receptor CXCR4 (fusin) and acts as a chemoattractant for T and B lymphocytes, monocytes and migratory neurons, and is a vital factor in haematopoiesis and angiogenesis. By competitively binding to CXCR4, SDF-1 acts as an inhibitor for the CXCR4-mediated entry of HIV-1 virus into target T-cells, and the SDF-1-CXCR4 interaction is important for the regulation of trafficking of normal and malignant stem cells.

Further Reading

1. Nagasawa, T. *et al.* (1998) A novel CXC chemokine PBSF/SDF-1 and its receptor CXCR4: their functions in development, hematopoiesis and HIV infection. [Semin Immunol. 10 \(3\): 179-85.](#)
2. Stumm, R. & Höllt, V. (2007) CXC chemokine receptor 4 regulates neuronal migration and axonal pathfinding in the developing nervous system: implications for neuronal regeneration in the adult brain. [J Mol Endocrinol. 38 \(3\): 377-82.](#)
3. Kucia, M. *et al.* (2005) Trafficking of normal stem cells and metastasis of cancer stem cells involve similar mechanisms: pivotal role of the SDF-1-CXCR4 axis. [Stem Cells. 23 \(7\): 879-94.](#)

Storage

Prior to reconstitution store at +4°C.

After reconstitution store at -20°C.

Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

12 months from date of reconstitution.

**Health And Safety
Information**

Material Safety Datasheet documentation #10162 available at:
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

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