

Datasheet: AHP794B

BATCH NUMBER 164848

Description:	RABBIT ANTI HUMAN SDF-1 ALPHA:Biotin
Specificity:	SDF-1 ALPHA
Format:	Biotin
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	50 µg

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	■			0.25 - 1.0ug/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 conjugated to Biotin - lyophilized
Reconstitution	Reconstitute with 0.5ml sterile PBS containing 0.1% Bovine Serum Albumin. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For long term storage the addition of 0.09% sodium azide is recommended.
Antiserum Preparation	Antisera to human SDF-1α were raised by repeated immunisations of rabbits with highly purified antigen. Purified IgG prepared by affinity chromatography.
Buffer Solution	Phosphate buffered saline

Preservative Stabilisers	None present
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml after reconstitution
Immunogen	Recombinant human SDF-1α
External Database Links	<p>UniProt:</p> <p>P48061 Related reagents</p> <p>Entrez Gene:</p> <p>6387 CXCL12 Related reagents</p>
Synonyms	SDF1, SDF1A, SDF1B
RRID	AB_2088159
Specificity	<p>Rabbit anti Human SDF-1 alpha antibody recognizes human SDF-1 alpha, otherwise known as CXCL12a, a 68 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.</p> <p>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.</p>
ELISA	This biotinylated human SDF-1α antibody may be used in a direct ELISA or as the detection reagent in a sandwich ELISA with our purified human SDF-1α antibody (AHP794) as the capture reagent and recombinant human SDF-1α (PHP122) as the standard.
Western Blotting	This antibody may be used in Western Blotting under either reducing or non-reducing conditions with recombinant human SDF-1α (PHP122) as the positive control.
References	<ol style="list-style-type: none"> 1. Wuchter, P. <i>et al.</i> (2016) Microcavity arrays as an <i>in vitro</i> model system of the bone marrow niche for hematopoietic stem cells. Cell Tissue Res. 364 (3): 573-84. 2. Song, J. <i>et al.</i> (2015) Focal MMP-2 and MMP-9 activity at the blood-brain barrier promotes chemokine-induced leukocyte migration. Cell Rep. 10 (7): 1040-54.
Further Reading	1. Nagasawa, T. <i>et al.</i> (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 -20°C.
After reconstitution store at -20°C.

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

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10294 available at:
<https://www.bio-rad-antibodies.com/SDS/AHP794B>
10294

Regulatory

For research purposes only

Related Products

Recommended Positive Controls

[RECOMBINANT HUMAN SDF-1 ALPHA \(PHP122\)](#)

Recommended Useful Reagents

[RABBIT ANTI HUMAN SDF-1 ALPHA \(AHP794\)](#)

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