ARG56613
anti-CXCL12 / SDF1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes CXCL12 / SDF1
Tested Reactivity	Ms
Tested Application	ELISA, Neut, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	CXCL12 / SDF1
Species	Mouse
Immunogen	E.coli derived Recombinant Mouse Cxcl12 / SDF-1α (P40224). (KPVSLSYRCP CRFFESHIAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK)
Conjugation	Un-conjugated
Alternate Names	TPAR1; SDF1; C-X-C motif chemokine 12; Pre-B cell growth-stimulating factor; TLSF; PBSF; SDF-1; Intercrine reduced in hepatomas; IRH; hSDF-1; 3-72; SCYB12; hIRH; 3-67; Stromal cell-derived factor 1

Application Instructions

Application table

Application	Dilution
ELISA	Sandwich: 0.5 - 2.0 µg/ml as a capture antibody
Neut	2.5 - 3.5 µg/ml (To yield [ND50] of the biological activity of Murine SDF - 1α (100 ng/ml))
WB	0.1 - 0.2 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

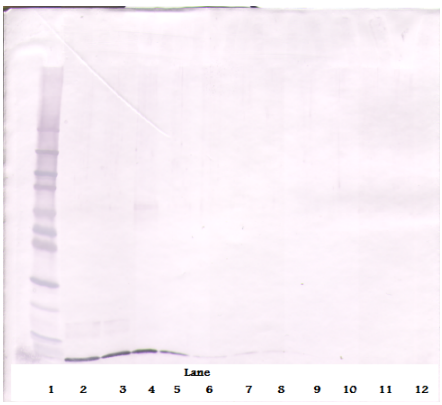
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.2)
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

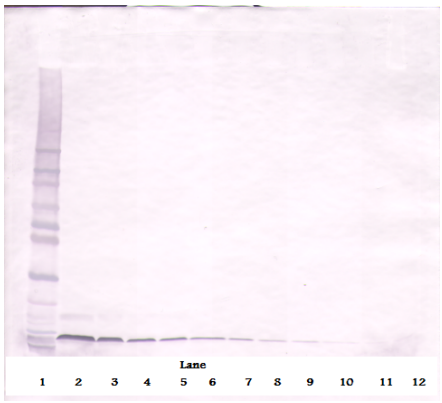
Database links	GeneID: 20315 Mouse Swiss-port # P40224 Mouse
Gene Symbol	Cxcl12
Gene Full Name	chemokine (C-X-C motif) ligand 12
Background	This antimicrobial gene encodes a stromal cell-derived alpha chemokine member of the intercrine family. The encoded protein functions as the ligand for the G-protein coupled receptor, chemokine (C-X-C motif) receptor 4, and plays a role in many diverse cellular functions, including embryogenesis, immune surveillance, inflammation response, tissue homeostasis, and tumor growth and metastasis. Mutations in this gene are associated with resistance to human immunodeficiency virus type 1 infections. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2014]
Function	Chemoattractant active on T-lymphocytes, monocytes, but not neutrophils. Activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis. Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway and acts as a scavenger receptor for SDF-1. SDF-1-beta(3-72) and SDF-1-alpha(3-67) show a reduced chemotactic activity. Binding to cell surface proteoglycans seems to inhibit formation of SDF-1-alpha(3-67) and thus to preserve activity on local sites. Acts as a positive regulator of monocyte migration and a negative regulator of monocyte adhesion via the LYN kinase. Stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3, and decreases monocyte adherence to surfaces coated with ICAM-1, a ligand for beta-2 integrins. SDF1A/CXCR4 signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase. Inhibits CXCR4-mediated infection by T-cell line-adapted HIV-1. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells. Has several critical functions during embryonic development; required for B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation. [UniProt]
Calculated Mw	11 kDa
PTM	Processed forms SDF-1-beta(3-72) and SDF-1-alpha(3-67) are produced after secretion by proteolytic cleavage of isoforms Beta and Alpha, respectively. The N-terminal processing is probably achieved by DPP4. Isoform Alpha is first cleaved at the C-terminus to yield a SDF-1-alpha(1-67) intermediate before being processed at the N-terminus. The C-terminal processing of isoform Alpha is reduced by binding to heparin and, probably, cell surface proteoglycans.

Images



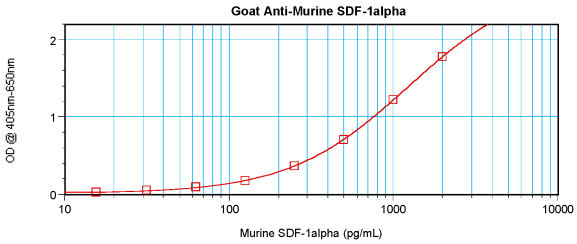
ARG56613 anti-Cxcl12 / SDF-1 antibody WB image

Western blot: 250 - 0.24 ng of Mouse SDF-1α stained with ARG56613 anti-Cxcl12 / SDF-1 antibody, under reducing conditions.



ARG56613 anti-Cxcl12 / SDF-1 antibody WB image

Western blot: 250 - 0.24 ng of Mouse SDF-1α stained with ARG56613 anti-Cxcl12 / SDF-1 antibody, under non-reducing conditions.



ARG56613 anti-Cxcl12 / SDF-1 antibody standard curve image

Sandwich ELISA: ARG56613 anti-Cxcl12 / SDF-1 antibody as a capture antibody at 0.5 - 2.0 µg/ml combined with anti-Cxcl12 / SDF-1 antibody (Biotin) as a detection antibody. Results of a typical standard run with optical density.