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(Mouse) Cxcl12 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21418a

Product Information

Application	WB, E
Primary Accession	P40224
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52661
Calculated MW	10561

Additional Information

Gene ID	20315
Other Names	Stromal cell-derived factor 1, SDF-1, 12-O-tetradecanoylphorbol 13-acetate repressed protein 1, TPAR1, C-X-C motif chemokine 12, Pre-B cell growth-stimulating factor, PBSF, Thymic lymphoma cell-stimulating factor, TLSF, Cxcl12, Sdf1
Target/Specificity	This Mouse Cxcl12 antibody is generated from a rabbit immunized with a Mouse Cxcl12 recombinant protein.
Dilution	WB~~1:4000-1:8000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	(Mouse) Cxcl12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Cxcl12
Synonyms	Sdf1
Function	Chemoattractant active on T-lymphocytes and 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. Binds to the allosteric site (site 2) of integrins and activates integrins ITGAV:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 in a CXCR4-independent manner (By similarity). 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. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells (By similarity). Has several critical functions during embryonic development; required for B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation. Stimulates the proliferation of bone marrow-derived B-cell progenitors in the presence of IL7 as well as growth of stromal cell-dependent pre-B-cells (PubMed:8134392).
Cellular Location	Secreted.
Tissue Location	Highest expression levels detected in kidney, liver, spleen and muscle. Isoform Alpha is expressed ubiquitously but at varying levels, while isoform Beta displays tissue-specific expression, with expression detected in kidney, liver, heart, spleen and muscle but not in lung, colon, brain, skin and stomach

Background

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. 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. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells (By similarity). Has several critical functions during embryonic development; required for B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation.

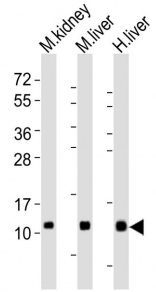
References

Tashiro K.,et al.Science 261:600-603(1993).
Jiang W.,et al.Exp. Cell Res. 215:284-293(1994).
Nagasawa T.,et al.Proc. Natl. Acad. Sci. U.S.A. 91:2305-2309(1994).
Nomura M.,et al.Submitted (DEC-1994) to the EMBL/GenBank/DDBJ databases.
Carninci P.,et al.Science 309:1559-1563(2005).

Images

All lanes : Anti-Cxcl12 Antibody at 1:4000-1:8000 dilution Lane 1: mouse kidney lysates Lane 2: mouse liver lysates Lane 3: human liver lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 11

kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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