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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
Predicted	Bovine, Canine, Chicken
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 (By similarity). Activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis (By similarity). Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway and acts as a scavenger receptor for CXCL12/SDF-1 (By similarity). 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 (By similarity). 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 (By similarity). CXCR4 signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase (By similarity). Plays a protective role after myocardial infarction (By similarity). 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 (PubMed:8757135). 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

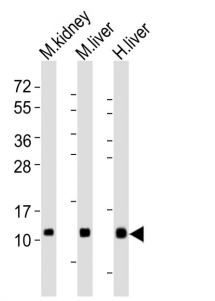
Chemoattractant active on T-lymphocytes, monocytes, but not neutrophils. Activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis. Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.