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CXCL12 Rabbit pAb

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Catalog # AP52212

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P48061
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10666
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SDF-1/CXCL12
Epitope Specificity	41-93/93
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This 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, May 2013].

Additional Information

Gene ID	6387
Other Names	Stromal cell-derived factor 1, SDF-1, hSDF-1, C-X-C motif chemokine 12, Intercrine reduced in hepatomas, IRH, hIRH, Pre-B cell growth-stimulating factor, PBSF, SDF-1-beta(3-72), SDF-1-alpha(3-67), CXCL12 {ECO:0000303|PubMed:16107333, ECO:0000312|HGNC:HGNC:10672}
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CXCL12 {ECO:0000303|PubMed:16107333, ECO:0000312|HGNC:HGNC:10672}
Function	Chemoattractant active on T-lymphocytes and monocytes but not neutrophils (PubMed:18802065, PubMed:39093700). Activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis (PubMed:8752281, PubMed:18802065, PubMed:39093700). Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway and acts as a scavenger receptor for CXCL12/SDF-1 (PubMed:16107333, PubMed:19255243). Binds to the allosteric site (site 2) of integrins and activates integrins ITGAV:ITGB3, ITGA4:ITGB1 and ITGA5:ITGB1 in a CXCR4-independent manner (PubMed:29301984). Acts as a positive regulator of monocyte migration and a negative regulator of monocyte adhesion via the LYN kinase (PubMed:18802065). 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 (PubMed:16107333, PubMed:18802065, PubMed:19255243, PubMed:39093700). CXCR4 signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase (PubMed:18802065). Inhibits CXCR4-mediated infection by T-cell line- adapted HIV-1 (PubMed:8752281). 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 (By similarity). 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 (By similarity).
Cellular Location	Secreted
Tissue Location	Isoform Alpha and isoform Beta are ubiquitously expressed, with highest levels detected in liver, pancreas and spleen Isoform Gamma is mainly expressed in heart, with weak expression detected in several other tissues. Isoform Delta, isoform Epsilon and isoform Theta have highest expression levels in pancreas, with lower levels detected in heart, kidney, liver and spleen

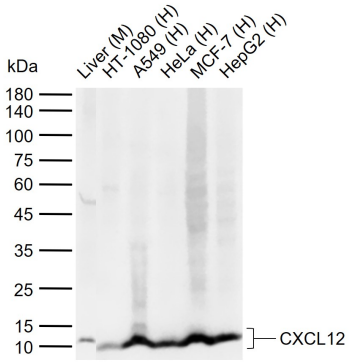
Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

References

Shirozu M.,et al.Genomics 28:495-500(1995).
Yu L.,et al.Gene 374:174-179(2006).
Spotila L.D.,et al.Submitted (OCT-1994) to the EMBL/GenBank/DDBJ databases.
Begum N.A.,et al.Submitted (JAN-1995) to the EMBL/GenBank/DDBJ databases.
Callebaut C.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

Images



Sample:
Lane 1: Mouse Liver tissue lysates
Lane 2: Human HT-1080 tissue lysates
Lane3: Human A549 cell lysates
Lane4: Human HeLa cell lysates
Lane 5: Human MCF-7 cell lysates
Lane 6: Human HepG2 cell lysates
Primary: Anti- CXCL12 (AP52212) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 8 kDa
Observed band size: 10 kDa

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