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Anti-SDF1 / CXCL12 Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17742

Product Information

Application	WB, IHC-P, E, Neut
Primary Accession	P48061
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	10666
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	6387
Alias Symbol	CXCL12
Other Names	CXCL12, C-X-C motif chemokine 12, HIRH, IRH, SDF-1, SDF-1b, SDF1A, SDF1B, TPAR1, TLSF-a, TLSF-b, SDF-1a, SDF1, Sdf1alpha, Stromal cell-derived factor 1, TLSF, HSDF-1, PBSF, SCYB12
Target/Specificity	Human SDF-1alpha
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-SDF1 / CXCL12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

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