SDF 1 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	SDF 1 (SDF-1), Blocking Peptide
Full Product Name	SDF 1 Blocking Peptide
Product Gene Name	SDF-1 blocking peptide
Product Synonym Gene Name	CXCL12
Product Synonym Names	12-O-tetradecanoylphorbol 13-acetate repressed protein 1; AI174028; C-X-C motif chemokine 12; Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1); Chemokine (C-X-C motif) ligand 12; Chemokine CXC motif ligand 12; cxcl12; hIRH; hSDF-1; Intercrine reduced in hepatomas; IRH; OTTHUMP00000019491; PBSF; Pre-B cell growth-stimulating factor; SCYB12; SDF 1; SDF-1-alpha(3-67); SDF-1a; SDF-1b; SDF1_HUMAN; SDF1A; SDF1B; Stromal cell-derived factor 1; Stromal cell-derived factor 1 delta; Stromal cell-derived factor 1 gamma; Stromal cell-derived factor 1a; Stromal cell-derived factor-1 alpha; Thymic lymphoma cell-stimulating factor; Tlsf; TLSF-a; TLSF-b; Tlsfa; Tlsfb; TPAR1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	SDF 1 peptide (MBS9616871) is used for blocking the activity of SDF 1 antibody (MBS9601339)
Molecular Weight	11kDa
Chromosome Location	Chromosome: 10; NC_000010.10 (44865601..44880545, complement). Location: 10q11.1
OMIM	600835
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for SDF-1 blocking peptide	Blocking/Control
Related Product Information for SDF-1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of SDF-1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SDF-1 purchase	MBS9616871 is a blocking peptide targeting SDF-1. Also known as SDF 1 Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SDF-1. It may not necessarily be applicable to this product.

NCBI GI #	10834988

NCBI GeneID	6387
NCBI Accession #	NP_000600.1
UniProt Primary Accession #	P48061
UniProt Secondary Accession #	Q2L985; Q2L986; Q2L988; Q5IT36; Q6ICW0; Q9H554; B2R4G0; E7EVL0; H7BYN8
UniProt Related Accession #	P48061
GenBank Nucleotide #	NM_000609.6
NCBI Official Full Name	stromal cell-derived factor 1 isoform beta
NCBI Official Synonym Full Names	chemokine (C-X-C motif) ligand 12
NCBI Official Symbol	CXCL12
NCBI Official Synonym Symbols	IRH; PBSF; SDF1; TLSF; TPAR1; SCYB12
UniProt Protein Name	Stromal cell-derived factor 1
UniProt Synonym Protein Names	C-X-C motif chemokine 12; Intercrine reduced in hepatomas; IRH; hIRH; Pre-B cell growth-stimulating factor
Protein Family	Stromal cell-derived factor
UniProt Gene Name	CXCL12
UniProt Synonym Gene Names	SDF1; SDF1A; SDF1B; SDF-1; hSDF-1; IRH; hIRH; PBSF
UniProt Entry Name	SDF1_HUMAN
NCBI Protein Information	stromal cell-derived factor 1; intercrine reduced in hepatomas; pre-B cell growth-stimulating factor

UniProt Comments for SDF-1	CXCL12: 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 another C-X-C chemokine receptor CXCR7, 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 CXCR7, 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 CXCR7 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. Monomer or homodimer; in equilibrium. Dimer formation is induced by non acidic pH and the presence of multivalent anions, and by binding to CXCR4 or heparin. Monomeric form is required for full chemotactic activity and resistance to ischemia/reperfusion injury, whereas the dimeric form acts as a partial agonist of CXCR4, stimulating Ca2+ mobilization but with no chemotactic activity and instead acts as a selective antagonist that blocks chemotaxis induced by the monomeric form. Interacts with the N- terminus of CXCR7. 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. Belongs to the intercrine alpha (chemokine CxC) family. 6 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Cell development/differentiation; Motility/polarity/chemotaxis; Chemokine; Secreted, signal peptide Chromosomal Location of Human Ortholog: 10q11.1 Cellular Component: extracellular space; extracellular region; external side of plasma membrane Molecular Function: growth factor activity; chemokine receptor binding; chemokine activity; CXCR chemokine receptor binding; receptor binding Biological Process: response to peptide hormone stimulus; positive regulation of dopamine secretion; positive regulation of cell adhesion; adult locomotory behavior; blood circulation; neuron migration; motor axon guidance; chemotaxis; signal transduction; induction of positive chemotaxis; germ cell development; T cell proliferation; response to radiation; germ cell migration; cell adhesion; organ regeneration; regulation of actin polymerization and/or depolymerization; response to virus; patterning of blood vessels; cellular calcium ion homeostasis; G-protein coupled receptor protein signaling pathway; response to mechanical stimulus; response to heat; ameboidal cell migration; response to hypoxia; positive regulation of axon extension involved in axon guidance; immune response; positive regulation of endothelial cell proliferation; telencephalon cell migration Disease: Human Immunodeficiency Virus Type 1, Susceptibility To
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