

CXCL12/SDF-1 Recombinant Protein | Cxcl12 recombinant protein

Recombinant Mouse CXCL12/SDF-1 Protein

CATALOG #
AAA283361

HOST
Pichia

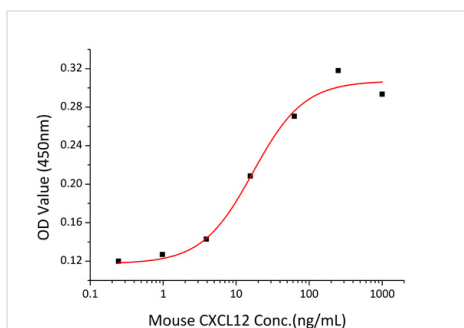
PRODUCT SYNONYMS

CXCL12/SDF-1; Recombinant Mouse CXCL12/SDF-1 Protein; Cxcl12; 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; Sdf1; Cxcl12 recombinant protein

PRODUCT SPECIFICATIONS

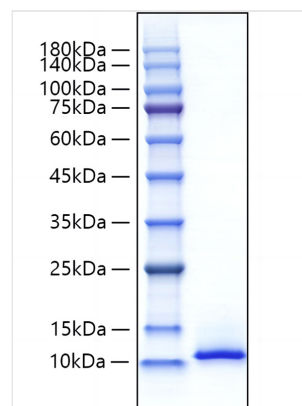
Host	Pichia
Form/Format	Lyophilized from a 0.22 um filtered solution of PBS, pH7.4.
Sequence	KPVSLSYRCP CRFFESHIAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK
Species	Mouse
Endotoxin	<1EU/ug of the protein by LAL method.
Bio-Activity	Measured by its ability to chemoattract MOLT4 cells. The ED ₅₀ for this effect is 8.49-33.94ng/mL, corresponding to a specific activity of $2.95 \times 10^4 \sim 1.18 \times 10^5$ units/mg.
Preparation and Storage	Store at -20 degree C. Store the lyophilized protein at -20 degree C to -80 degree C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20 degree C for 3 months, at 2-8 degree C for up to 1 week.

IMAGES



Application Data

Recombinant Mouse CXCL12/SDF-1 chemoattract MOLT4 cells. The ED₅₀ for this effect is 8.49-33.94 ng/mL, corresponding to a specific activity of $2.95 \times 10^4 \sim 1.18 \times 10^5$ units/mg.



SDS-PAGE

Recombinant Mouse CXCL12/SDF-1 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 10-15 kD.

ADDITIONAL INFORMATION

Related Product Information for Cxcl12 recombinant protein	Mouse Cxcl12 is a secreted and highly conserved protein which belongs to the intercrine alpha (chemokine CxCl)family.CXCL12 is widely expressed in various organs including brain, kidney, skeletal muscle, heart, liver, and lymphoidorgans. Cxcl12 activates the C-X-C chemokine receptor CXCR4 to induce a rapid and transient rise in the level ofintracellular calcium ions and chemotaxis. It also binds to atypical chemokine receptor ACKR3 which activates the beta-arrestin pathway and acts as a scavenger receptor for SDF-1. Cxcl12 has several critical functions during embryonicdevelopment such as B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation. Cxcl12plays an important role in acting as a positive regulator of monocyte migration and a negative regulator of monocyteadhesion via the LYN kinase. It stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 andACKR3, and decreases monocyte adherence to surfaces coated with ICAM-1, a ligand for beta-2 integrins. SDF1A/CXCR4signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase. It also plays aprotective role after myocardial infarction, induces down-regulation and internalization of ACKR3 expressed in various cellsand stimulates the proliferation of bone marrow-derived b progenitor cells in the presence of IL-7 as well as growth of thestromal cell-dependent B-cell clone DW34 cells.
Product Categories/Family for Cxcl12 recombinant protein	Cytokines & Cytokine receptors; Proteins

NCBI AND UNIPROT INFORMATION

NCBI GI #	7305465
NCBI GeneID	20315
NCBI Accession #	NP_038683.1
NCBI GenBank Nucleotide #	NM_013655.4
UniProt Accession #	P40224; Q4FJL5; Q543V6
UniProt Protein Name	Stromal cell-derived factor 1
UniProt Gene Name	Cxcl12
UniProt Synonym Gene Names	Sdf1; SDF-1; TPAR1; PBSF; TLSF
UniProt Entry Name	SDF1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.