9853 Pacific Heights Blvd.
Suite D. San Diego,
CA 92121, USA
Tel: 858-263-4982
Email: info@abeomics.com

32-6615: SDF 1a Mouse, His

Alternative Name :	SDF-1, CXCL12, Pre-B cell growth-stimulating factor, PBSF, hIRH, chemokine (C-X-C motif) ligand 12, SDF1, SDF1A, TPAR1, SCYB12, SDF-1a, TLSF-a, 12-O tetradecanoylphorbol 13-acetate repressed protein 1, Thymic lymphoma cell stimulating factor, TLSF.

Description

Source: Escherichia Coli.
Sterile Filtered colorless solution.
SDF-1 (stromal cell-derived factor-1) is small cytokine belonging to the chemokine family that is officially designated Chemokine (C-X-C motif) ligand 12 (CXCL12). It is produced in two forms, SDF-1 /CXCL12a and SDF-1 /CXCL12b, by alternate splicing of the same gene. Chemokines are characterized by the presence of four conserved cysteines, which form two disulfide bonds. The CXCL12 proteins belong to the group of CXC chemokines, whose initial pair of cysteines are separated by one intervening amino acid. CXCL12 is strongly chemotactic for lymphocytes and has been implicated as an important cell co-ordinator during development. During embryogenesis it directs the migration of hematopoietic cells from foetal liver to bone marrow. Mice which were knocked-out for CXCL12 gene were lethal before the birth or within just 1 hour of life. As another role, CXCL12a alters also the electrophysiology of neurons. CXCL12 was shown to be expressend in many tissues in mice (including brain, thymus, heart, lung, liver, kidney, spleen and bone marrow).The receptor for this chemokine is CXCR4, which was previously called fusin. This CXCL12-CXCR4 interaction used to be considered exclusive (unlike for other chemokines and their receptors), but recently it was suggested that CXCL12 is also bound by CXCR7 receptor.The gene for CXCL12 is located on human chromosome 10. In human and mouse both CXCL12 and CXCR4 show high identity of sequence: 99% and 90%, respectively.
SDF 1a Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 91 amino acids (22-89 a.a) and having a molecular mass of 10.4kDa. SDF 1a is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Product Info

Amount :	2 µg / 10 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	SDF 1a protein solution (0.25mg/ml) containing Phosphate Buffered Saline (pH7.4) and 10% glycerol.
Storage condition :	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles.
Amino Acid :	MGSSHHHHHH SSGLVPRGSH MGSKPVSLSY RCPCRFFESH IARANVKHLK ILNTPNCALQ IVARLKNNNR QVCIDPKLKW IQEYLEKALN K.

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