9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

SDF 1a Mouse, His

Stromal Cell-Derived Factor-1 alpha (CXCL12), Mouse Recombinant, His Tag
CHK0159

Product Overview

Name	SDF 1a Mouse, His

Description

Stromal Cell-Derived Factor-1 alpha (CXCL12), Mouse Recombinant, His Tag

Accession (Primary)	P40224

Synonyms

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.

Introduction

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.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered colorless solution.

Formulation

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SDF 1a protein solution (0.25mg/ml) containing Phosphate Buffered Saline (pH7.4) and 10% glycerol.

Stability

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.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

MGSSHHHHHH SSGLVPRGSH MGS KPVSLSY RCPCRFFESH IARANVKHLK ILNTPNCALQ IVARLKNNNR QVCIDPKLKW IQEYLEKALN K.

Precautions

SDF 1a Mouse, His is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P40224)