

Rev03
Update: Dec,14,2021

DATASHEET

SDF-1 β /CXCL12, Rat

Cat. No.: Z02860

Product Introduction

Species	Rat
Protein Construction	Expressed with additional C-terminal sequence (RLKM). SDF-1β/CXCL12 (Lys22-Lys89) Accession # Q9QZD1
Purity	> 97% as analyzed by SDS-PAGE > 97% as analyzed by HPLC
Endotoxin Level	< 1 EU/ μ g of protein by LAL method
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood monocytes is in a concentration range of 100.0-200.0 ng/ml.
Expression System	E. coli
Theoretical Molecular Weight	8.4 kDa
Formulation	Lyophilized from a 0.2 μ m filtered solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Background

Target Background : Stromal-Cell Derived Factor-1 beta (SDF-1 β), also known as SCYB12, PBSF and CXCL12, is an 8.3 kDa, heparin-binding member of the CXC (or alpha) family of chemokines and signal through the CXCR4 receptor. SDF-1 α and β are reported to be monomers at neutral pH and physiologic ionic strength, On the cell surface, this may well facilitate SDF-1 interaction with its two receptors, CXCR4 and syndecan4. Heparin sulfate is known to protect SDF-1 from proteolysis, and CXCR4 exists constitutively as a dimer. Among its many functions, CXCL12 is known to influence lymphopoiesis, regulate patterning and cell number of neural progenitors, and promote angiogenesis (12, 13). It also enhances the survival of myeloid progenitor cells

Synonyms : SDF-1- β ; SDF1 β ; SDF-1 beta; CXCL-12; IRH; PBSF; SCYB12; SDF1; TLSF; TPAR1; C-X-C motif chemokine ligand 12

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.