

## SDF-1B/CXCL12

Catalog # PVGS1109

#### **Specification**

## SDF-1β/CXCL12 - Product Information

Primary Accession **Species** Rat Q9QZD1

Sequence

Lys22-Lys89, expressed with additional C-terminal sequence (RLKM)

**Purity** 

> 97% as analyzed by SDS-PAGE<br/>br>> 97% as analyzed by HPLC

**Endotoxin Level** 

< 1 EU/  $\mu g$  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  $\mu m$  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 $^{\circ}$ C or -20 $^{\circ}$ C. Upon reconstitution, the product should be stable for up to 1 week at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C. Avoid repeated freeze-thaw cycles.

### SDF-1B/CXCL12 - Additional Information

### **Target Background**

Stromal-Cell Derived Factor-1 beta (SDF-1 $\beta$ ), 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 $\alpha$  and  $\beta$  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

# SDF-1β/CXCL12 - Protein Information

## SDF-1β/CXCL12 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SDF-1β/CXCL12 - Images