

## PRODUCT DATA SHEET



Bioworld Technology, Inc.

### Recombinant Human Stromal-Cell Derived Factor-1beta/CXCL12 (rHuSDF-1b/CXCL12)

Catalog Number: PR1116

Source: Escherichia coli.

Quantity: 2µg/10µg/1.0mg

#### Description

Stromal-Cell Derived Factor-1 beta (SDF1 $\beta$ ), 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. SDF1 $\alpha$  and  $\beta$  are reported to be monomers at neutral pH and physiologic ionic strength. On the cell surface, this may well facilitate SDF1 interaction with its two receptors, CXCR4 and syndecan4. Heparin sulfate is known to protect SDF1 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.

#### Molecular Weight:

Approximately 8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acid residues.

#### Purity:

KPVLSYRCP CRFFESHVAR ANVKHLKILN TPN-CALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNKRF KM

#### Biological Activity:

>95% by SDS-PAGE and HPLC analyses.

#### Physical Appearance:

Measured by its ability to chemoattract human CXCR4 transfected BaF3 mouse proB cells. The ED50 for this effect is typically 1-5 ng/mL.

#### Formulation:

Sterile Filtered White lyophilized (freeze-dried) powder.

#### AA Sequence:

Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.

#### Endotoxin:

Less than 1EU/µg of rHuSDF-1b/CXCL12 as determined by LAL method.

#### Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

#### Storage:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

#### Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

MADE IN CHINA

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