

**RECOMBINANT HUMAN SDF-1 $\alpha$**

**Catalog # 02629**

**10 mg per vial**

**Catalog # 02829**

**50 mg per vial**

**PRODUCT DESCRIPTION:**

Stromal cell-derived factor-1 (SDF-1), also known as Pre-B cell growth stimulating factor (PBSF), is a chemokine secreted by bone marrow and other stromal cells. SDF-1 is a chemoattractant for T lymphocytes and monocytes, but not neutrophils. SDF-1 was shown to be a ligand for fusin/LESTR, a CXCR4 type receptor that functions as a coreceptor for HIV-1 strains. Recently, SDF-1 was shown to induce lymphocyte homing, mature blood cell functional activation and stem cell growth inhibition. SDF-1 is also a chemoattractant for CD34+ hemopoietic progenitors. Human SDF-1 $\alpha$  is synthesized as a precursor of 89 amino acid residues processed to the mature form by cleavage of the N-terminus.

**SOURCE:**

A DNA sequence encoding the mature human SDF-1 $\alpha$  protein (aa residues 22-89) was expressed in *E. coli*.

**PURITY:**

Greater than 97% as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is less than 0.1 ng per  $\mu$ g of the cytokine, as determined by the LAL method.

**FORMULATION:**

Lyophilized from a sterile-filtered solution in 30% acetonitrile, 0.1% TFA containing 50  $\mu$ g of bovine serum albumin per 1  $\mu$ g of cytokine.

**RECONSTITUTION:**

It is recommended that sterile phosphate-buffered saline containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of no less than 10  $\mu$ g/ml of the cytokine.

**STABILITY/STORAGE:**

The lyophilized sample is stable for greater than six months at -20°C to -70°C. Reconstituted SDF-1 can be stored under sterile conditions at 2°C to 4°C for one month or at -20°C to -70°C for three months without detectable loss of activity.

**Avoid repeated freezing and thawing.**

**ACTIVITY:**

Activity was determined by the ability to chemoattract 5 – 10 day cultured human T lymphocytes and the ED<sub>50</sub> using this assay was typically 3 – 9 ng/ml.

**THIS REAGENT IS FOR RESEARCH USE ONLY.  
IT IS NOT TO BE ADMINISTERED TO HUMANS.**