

RECOMBINANT MOUSE SDF-1 α

Catalog # 02754 10 mg per vial
Catalog # 02954 50 mg per vial

PRODUCT DESCRIPTION:

Stromal cell-derived factor-1 (SDF-1), also known as Pre-B cell growth stimulating factor (PBSF), is an α family (CXC) chemokine secreted by bone marrow, stromal cells, liver tissue and muscle. SDF-1 is chemoattractant for T lymphocytes, monocytes, pro-and pre-B cells 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+ haemopoietic progenitors. Mouse SDF-1 α is synthesized as a precursor of 89 amino acid residues processed to the mature form by cleavage of the N-terminus. Recombinant mouse SDF-1 α contains 68 amino acid residues and has a predicted molecular mass of 8 kDa.

SOURCE:

A DNA sequence encoding the mature mouse SDF-1 α 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 μ g of the cytokine, as determined by the LAL method.

FORMULATION:

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

RECONSTITUTION:

It is recommended that sterile PBS 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 μ g/ml of the cytokine.

STABILITY/STORAGE:

The lyophilized sample is stable for greater than six months at -20°C to -70°C. Reconstituted mouse 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 cultured human lymphocytes and mouse BaF/3 cells transfected with the human CXCR4 receptor. The ED₅₀ using this assay was typically 3 – 9 ng/ml and 0.15 – 0.6 ng/mL, respectively.

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