

SDF-1\alpha/CXCL12

Catalog # PVGS1464

Product Information

Primary Accession Q4FJL5
Species Mouse

Sequence Lys22-Lys89

Purity > 95% as analyzed by SDS-PAGE

Endotoxin Level

Biological Activity The EC₅₀ value of mouse SDF-1 α /CXCL12 on Ca²⁺ mobilization assay in

CHO-K1/Gα15/mCXCR4 cells (human Gα15 and mCXCR4 stably expressed in

CHO-K1 cells) is less than 1.5 \(\textstyle g/ml. \)

Expression System CHO

Formulation Lyophilized after extensive dialysis against PBS.

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

ddH₂O or PBS up to 100 □g/ml.

Storage & Stability Upon receiving, this product remains stable for up to 6 months at lower than

-70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw

cycles.

Additional Information

Target Background

Stromal-Cell Derived Factor-1 alpha/ CXCL12 (SDF-1α) and SDF-1β, members of the chemokine α subfamily that lack the ELR domain, were initially identified using the signal sequence trap cloning strategy from a mouse bone-marrow stromal cell line. These proteins were subsequently also cloned from a human stromal cell line as cytokines that supported the proliferation of a stromal cell-dependent pre-B-cell line. SDF-1 α and SDF-1 β cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1α and SDF-1β are encoded by a single gene and arise by alternative splicing. The two proteins are identical except for the four amino acid residues that are present in the carboxy-terminus of SDF-1β and absent from SDF-1α. SDF-1/PBSF is highly conserved between species, with only one amino acid substitution between the mature human and mouse proteins. SDF-1/PBSF acts via the chemokine receptor CXCR4 and has been shown to be a chemoattractant for T-lymphocytes, monocytes, pro- and pre- B cells, but not neutrophils. Mice lacking SDF-1 or CXCR4 have been found to have impaired B-lymphopoiesis, myelopoiesis, vascular development, cardiogenesis and abnormal neuronal cell migration and patterning in the

Protein Information

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.