

Recombinant Human CXCL12 alpha

Catalog # FL078

Product Specifications

Appearance	Sterile filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE or HPLC.
Endotoxin	< 0.01 EU/μg of rHuSDF-1α/CXCL12α protein as determined by LAL method.
Expression System	Expressed in E. coli.
Species	Human
Tag	Tag free.
Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using PHA and rHuIL-2 activated human peripheral blood T-lymphocytes is in a concentration range of 20-80 ng/ml.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	Before use this product, please read the direction below carefully. This vial must be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a 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.
Accession #	P48061 Lys22-Lys89
Amino acid sequence	KPVSLSYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNNRQVCIDPKLKWIQEYLEKALNK
Molecular weight	Approximately 8.0 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.
Stability & Storage	For long term storage, the product should be stored ≤ -20°C. Please avoid repeated freeze-thaw cycles after reconstitution. 36 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -20 to -70°C under sterile conditions after reconstitution.
Precautions	Recombinant Human CXCL12 alpha is for research use only and not for use in diagnostic or therapeutic procedures.

Background

CXCL12 also known as SDF-1 is belonging to the CXC chemokine family. It is encoded by the CXCL12 gene. In recently study, Human CXCL12 is expressed as six isoforms that differ only in the C-terminal tail. And all SDF-1 isoforms undergo proteolytic processing of the first two N-terminal amino acids. In all SDF-1 isoforms, SDF-1β is the canonical sequence. Contrast to the canonical sequence SDF-1β, SDF-1α is shorter by four amino acids at the C-terminal tail. On the cell surface, the receptor for this chemokine is CXCR4 and syndecan 4. CXCL12 is strongly chemotactic for T-lymphocytes, monocytes, but not neutrophils. CXCL12 is a very important factor in carcinogenesis and the neovascularization linked to tumor progression. Recombinant human Stromal-Cell Derived Factor-1 alpha/CXCL12 alpha is an 8.0kDa protein containing 68 amino acid residues.

