

**Recombinant Human Stromal-Cell Derived
Factor-1 gamma/CXCL12 γ
(rHuSDF-1 γ /CXCL12 γ)
ChemWhat Technical Data Sheet (TDS)**

Catalog Number:	201-12C
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 11.6 kDa, a single non-glycosylated polypeptide chain containing 99 amino acid residues.
Quantity:	2 μ g/10 μ g/1000 μ g
AA Sequence:	GKPVLSLYRC PCRFFESHVA RANVKHLKIL NTPNCALQIV ARLKNNNRQV CIDPKLKWIQ EYLEKALNKG RREEKVGKKE KIGKKKRQKK RCAAQKRKN
Purity:	> 96 % by SDS-PAGE and HPLC analyses.
Biological 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 30-100 ng/ml.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 0.1 EU/ μ g of rHuSDF-1 γ /CXCL12 γ 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 \leq -20 $^{\circ}$ C . Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 $^{\circ}$C as supplied.● 1 month, 2 to 8 $^{\circ}$C under sterile conditions after reconstitution.● 3 months, -20 to -70 $^{\circ}$C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Human Stromal-Cell Derived Factor-1 gamma/CXCL12 γ

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. Human SDF-1 γ is synthesized as a 119 amino acid (a.a.) precursor that contains a 21 a.a. signal sequence and a 98 a.a. mature region and the SDF-1 γ C-terminus binds heparin in secreted SDF-1 γ , or targets the isoform to the nucleolus in the absence of a signal sequence. On the cell surface, the receptor for this chemokine is CXCR4 and syndecan4. CXCL12 is strongly chemotactic for T-lymphocytes, monocytes, but not neutrophils. CXCL12 is a very important factor in carcinogenesis and the neovascularisation linked to tumor progression.