Recombinant Human Stromal-Cell Derived Factor-1 beta/CXCL12 beta

#R00367

Size: 10 μg/100 μg/500 μg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 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.

Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

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. It has the complete amino acids in the C-terminal tail. 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.

AA Sequence

KPVSLSYRCPCRFFESHVARANVKHLKILNTPNCALQI
VARLKNNNRQVCIDPKLKWIQEYLEKALNKRFKM

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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	hSDF-1 beta, IRH, hIRH, PBSF
Accession	P48061
GeneID	6387
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acid residues.
Purity	> 97 % 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 20-80 ng/ml.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/μg of rHuSDF-1β/CXCL12β as determined by LAL method.