Recombinant Murine Stromal-Cell Derived Factor-1 beta/CXCL12β

#R00418

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. Murine CXCL12 is expressed as two isoforms that differ only in the C-terminal tail. Both 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. SDF-1 is highly conserved between species, murine CXCL12β shares approximately 92 % amino acid sequence identity with human CXCL12β.

AA Sequence

KPVSLSYRCPCRFFESHIARANVKHLKILNTPNCALQI
VARLKNNNRQVCIDPKLKWIQEYLEKALNKRLKM

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	TPAR1, PBSF, TLSF
Accession	P40224
GeneID	20315
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 8.5 kDa, a single non-glycosylated polypeptide chain containing 72 amino acids.
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 human peripheral blood monocytes is in a concentration range of 50-100 ng/ml.
Physical	Sterile Filtered White lyophilized

Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Endotoxin	Less than 1 EU/μg of rMuSDF-1β/CXCL12βas determined by LAL method.