Technical Data Sheet

Recombinant Murine Platelet Factor-4/CXCL4 (rMu PF-4/CXCL4)

Murine Platelet Factor-4/CXCL4

Platelet Factor 4 is a member of the CXC chemokine family, CXCL4. CXCL4 has homology with IL8 and β thromboglobulin. The active protein consists of a tetramer composed of individual CXCL4 subunits. Megakaryocytes synthesize CXCL4 and store it as tetramers in α -granules. The CXCL4 tetramers are secreted by activated platelets and can be measured at micromolar levels in serum. In contrast to other CXC chemokines, CXCL4 lacks chemotactic activity for polymorphonuclear granulocytes. CXCL4 does not contain an ELR motif. However, many other functions have been observed for CXCL4. CXCL4 is involved in monocyte survivial and differentiation into macrophages, and it has antiangiogenic activity. CXCL4 has been demonstrated to inhibit the binding of FGF2 to highaffinity receptors and its subsequent internalization. Cell surface neutrophil chondroitin sulfate chains serve as CXCL4 binding sites; affinity is controlled by the degree of sulfation of these chains.

Catalog Number:	RC332-15
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 8.2 kDa, a single non-glycosylated polypeptide chain containing 76 amino acids.
Quantity:	5μg/20μg/1000μg
Sequence:	VTSAGPEESD GDLSCVCVKT ISSGIHLKHI TSLEVIKAGR HCAVPQLIAT LKNGRKICLD RQAPLYKKVI KKILES
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} determined by inhibiting human FGF-basic-dependent proliferation of murine NR6R/3T3 cells is less than 15000 ng/ml, corresponding to a specific activity of >66.7 IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated solution in 20mM PB, 1.5M NaCl, pH 7.4.
Endotoxin:	Less than 1EU/μg of rMuPF-4/CXCL4 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 <-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Usage:	This material is offered by Bio Basic Canada Inc. for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.