

Recombinant Murine Platelet Factor-4/CXCL4

Information

Gene ID	56744
Accession #	Q9Z126
Alternate Names	
Source	Escherichia coli.
M.Wt	Approximately 8.2 kDa, a single non-glycosylated polypeptide chain containing 76 amino acids.
AA Sequence	VTSAGPEESD GDLSCVCVKT ISSGIHLKHI TSLEVIKAGR HCAVPQLIAT LKNGRKICLD RQAPLYKKVI KKILES
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, 1.5 M NaCl, pH 7.4.
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.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human neutrophils is in a concentration of 10-100ng/ml.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5µg	100µg	500µg
Recombinant Murine Platelet Factor-4/CXCL4	5µg	100µg	500µg

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

Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rMuPF-4/CXCL4 as determined by LAL method.

Description

CXCL4 (PF4) is a small cytokine belonging to the CXC chemokine family and it is also known as chemokine (C-X-C motif) ligand 4 (CXCL4). This chemokine is released from alpha-granules of activated platelets during platelet aggregation and neutralizes the anticoagulant effect of heparin because it binds more strongly to heparin than to the chondroitin-4-sulfate chains of the carrier molecule. CXCL4 interacts with a splice variant of the chemokine receptor CXCR3. Recombinant mouse CXCL4 contains 76 amino acids which is a single non-glycosylated polypeptide chain. Specifically, Human and mouse CXCL4 share about a 60 % identity.

Reference

1. O'Donovan N, Galvin M, Morgan JG. 1999. Cytogenet Cell Genet. 84:39-42
2. Eisman R, Surrey S, Ramachandran B, et al. 1990. Blood. 76:336-44
3. Lasagni L, Francalanci M, Annunziato F, et al. 2003. J Exp Med. 197:1537-49
4. Warkentin TE. 2007. N Engl J Med. 356:891-3.

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