

## Recombinant Human Platelet Factor-4/CXCL4

### Information

<b>Gene ID</b>	5196
<b>Accession #</b>	P02776
<b>Alternate Names</b>	Iroplact, Oncostatin-A
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	Approximately 7.8 kDa, a single non-glycosylated polypeptide chain containing 70 amino acids.
<b>AA Sequence</b>	EAEEDGDLQC LCVKTTSQVR PRHITSLEVI KAGPHCPTAQ LIATLKNGRK ICLDLQAPLY KKIIKKLLES
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	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
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in Acetonitrile and TFA.
<b>Reconstitution</b>	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.
<b>Biological Activity</b>	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human fibroblasts is in a concentration of 1.0-10 ng/ml.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5µg	100µg	500µg
Recombinant Human 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/ $\mu$ g of rHuPF-4/CXCL4 as determined by LAL method.

## Description

Platelet Factor-4 (PF-4) is a small cytokine belonging to the CXC chemokine family that is also known as chemokine (C-X-C motif) ligand 4 (CXCL4). The gene for human CXCL4 is located on human chromosome 4. This chemokine is released from alpha-granules of activated platelets during platelet aggregation and neutralizes the anticoagulant effect of heparin. It interacts with a splice variant of the chemokine receptor CXCR3 besides be chemotactic for neutrophils, fibroblasts and monocytes. Recombinant human CXCL4 contains 70 amino acids binds with high affinity to heparin. 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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