Recombinant Human Platelet Factor-4 Variant 1 (rh PF-4 Variant 1/ CXCL4)

**Synonyms**: Iroplact, Oncostatin-A, SCYB4,

**Introduction**: Platelet factor-4 is a 70-amino acid protein that is released from the alpha-granules of activated platelets and binds with high affinity to heparin. Its major physiologic role appears to be neutralization of heparin-like molecules on the endothelial surface of blood vessels, thereby inhibiting local antithrombin III activity and promoting coagulation. As a strong chemoattractant for neutrophils and fibroblasts, PF-4 probably has a role in inflammation and wound repair. Oncostatin-A is a member of the CXC chemokine family. Human PF-4 is used for the proof of heparin-induced thrombocytopenia. Furthermore it is used as an inhibitor in the angiogenesis during tumor therapy.

**Description**: Human recombinant PF-4 Variant 1 produced in E. coli is is a single, non-glycosylated polypeptide chain containing 70 amino acids and having a molecular mass of 7.8 kDa.

**Source**: *Escherichia coli*

**Physical Appearance**: Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation**: Lyophilized from a 0.22 µm filtered solution in 25 mM sodium phosphate, 500 mM NaCl, pH 7.0. The sample size of 1 µg contains Trehalose 5% (w/vol) for better recovery.

**Solubility**: It is recommended to reconstitute the lyophilized PF-4 Variant 1 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability**: Lyophilized PF-4V1 although stable at room temperature for 1 week, should be stored desiccated below -18°C. Upon reconstitution PF-4 V1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity**: Greater than 95.0% as determined by SDS-PAGE.

**Endotoxicity**: The endotoxin level is less than 1 EU / µg determined by LAL method.

**Amino Acid Sequence**: EAEEDGDLQC LCVKTSQVR PRHITSLEV I KAGPHCPTAQ LIATLKNGRK ICLDLQALL Y KKIKEHLES.

**Biological Activity**: The rhPF4V1 is fully biologically active determined by its activity to inhibit migration of human umbilical vein endothelial cells in a concentration range of 10-100 ng/ml.