

Recombinant Human Platelet Factor-4/CXCL4

(Human PF-4/CXCL4)

Product Information

Product Name	Cat#	Size
	90907ES08	5 µg
Recombinant Human Platelet Factor-4/CXCL4 (Human PF-4/CXCL4)	90907ES60	100 µg
	90907ES76	500 µg

Product Description

CXCL4, also called PF4 (platelet factor 4), is an 8 kDa member of the CXC chemokine family, sharing features with CXCL8/IL-8 and CXCL7/NAP-2. Mature human CXCL4 shares 65-76% amino acid sequence identity with mouse, rat, bovine, ovine and porcine CXCL4. The active protein is a tetramer of CXCL4 subunits that forms a ring of heparin-binding positive charges from sites at the C-terminal region of each monomer. Megakaryocytes synthesize CXCL4 and store it in platelet alpha -granules. Secretion from activated platelets can produce micromolar levels in serum and over 100-fold higher within clots. In contrast to other CXC chemokines, CXCL4 does not contain an ELR motif and lacks binding to nearly all chemokine receptors. A potential high-affinity G-protein-coupled receptor for CXCL4, the CXCR3 isoform CXCR3B, is expressed in human but not mouse. In most cases, it is likely that cell surface binding and signaling properties of CXCL4 are due to binding of glycosaminoglycans chains, particularly chondroitin sulfates. CXCL4 released from activated platelets binds and regulates thrombin/thrombomodulin complexes, regulates and enhances production of activated Protein C (APC), and limits the coagulation cascade. It binds and influences the enzymatic activity of coagulation factor Xa. It binds fibrin and affects clot structure. Therapeutic doses of the anticoagulant heparin neutralize CXCL4 procoagulant effects.

Product Properties

Synonyms	Iroplact, Oncostatin-A
Accession	P02776
GeneID	5196
Source	E.coli-derived Human GRO-γ,Glu32-Ser101.
Molecular Weight	Approximately 7.8 kDa
AA Sequence	EAEEDGDLQC LCVKTTTSQVR PRHITSLEVI KAGPHCPTAQ LIATLKNGRK ICLDLQAPLY KKIHKKLLS
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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 fibroblasts is in a concentration of 1.0-10 ng/mL.
Endotoxin	< 1 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in Acetonitrile and TFA

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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycle.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.