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PF4 Blocking Peptide (N-Term)

Synthetic peptide
Catalog # BP21972a

Specification

PF4 Blocking Peptide (N-Term) - Product Information

Primary Accession	P02776
Other Accession	P10720

PF4 Blocking Peptide (N-Term) - Additional Information

Gene ID 5196

Other Names
Platelet factor 4, PF-4, C-X-C motif chemokine 4, Iroplact, Oncostatin-A, Platelet factor 4, short form, PF4, CXCL4, SCYB4

Target/Specificity
The synthetic peptide sequence is selected from aa 48-59 of HUMAN PF4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PF4 Blocking Peptide (N-Term) - Protein Information

Name PF4

Synonyms CXCL4, SCYB4

Function
Chemokine released during platelet aggregation that plays a role in different biological processes including hematopoiesis, cell proliferation, differentiation, and activation (PubMed:29930254, PubMed:9531587). Acts via different functional receptors including CCR1, CXCR3A or CXCR3B (PubMed:18174362, PubMed:29930254). Upon interaction with CXCR3A receptor, induces activated T-lymphocytes migration mediated via downstream Ras/extracellular signal-regulated kinase (ERK) signaling (PubMed:18174362, PubMed:24469069). Neutralizes

the anticoagulant effect of heparin by binding more strongly to heparin than to the chondroitin-4-sulfate chains of the carrier molecule. Plays a role in the inhibition of hematopoiesis and in the maintenance of hematopoietic stem cell (HSC) quiescence (PubMed:9531587). Chemotactic for neutrophils and monocytes via CCR1 (PubMed:29930254). Inhibits endothelial cell proliferation. In cooperation with toll-like receptor 8/TLR8, induces chromatin remodeling and activates inflammatory gene expression via the TBK1-IRF5 axis (PubMed:35701499). In addition, induces myofibroblast differentiation and collagen synthesis in different precursor cells, including endothelial cells, by stimulating endothelial-to-mesenchymal transition (PubMed:34986347). Interacts with thrombomodulin/THBD to enhance the activation of protein C and thus potentiates its anticoagulant activity (PubMed:9395524).

Cellular Location
Secreted.

PF4 Blocking Peptide (N-Term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PF4 Blocking Peptide (N-Term) - Images

PF4 Blocking Peptide (N-Term) - Background

Released during platelet aggregation. Neutralizes the anticoagulant effect of heparin because it binds more strongly to heparin than to the chondroitin-4-sulfate chains of the carrier molecule. Chemotactic for neutrophils and monocytes. Inhibits endothelial cell proliferation, the short form is a more potent inhibitor than the longer form.

PF4 Blocking Peptide (N-Term) - References

Poncz M.,et al.Blood 69:219-223(1987).
Eisman R.,et al.Blood 76:336-344(1990).
Zhang C.,et al.Blood 98:610-617(2001).
Ebert L.,et al.Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 434:724-731(2005).