Animal-Free PF-4/CXCL4 Protein, Human (His)

Cat. No.:	HY-P700046AF
Synonyms:	C-X-C motif chemokine 4; Oncostatin A; SCYB4
Species:	Human
Source:	E. coli
Accession:	P02776 (E32-S101)
Gene ID:	5196
Molecular Weight:	Approximately 8.58 kDa

PROPERTIES

AA Sequence	E A E E D G D L Q C L C V K T T S Q V R P R H I T S L E V I K A G P H C P T A Q L I A T L K N G R K I C L D L Q A P L Y K K I I K K L L E S
Biological Activity	Measure by its ability to inhibit human FGF-2-induce proliferation in HUVEC cells. The ED_{50} for this effect is <5 μg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 7.4.
Endotoxin Level	<0.1 EU per 1 μg of the protein by the LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	PF-4/CXCL4 protein, released during platelet aggregation, plays a pivotal role in various physiological processes. It acts to neutralize the anticoagulant effect of heparin by exhibiting a higher binding affinity to heparin compared to the chondroitin-4-sulfate chains of the carrier molecule. Furthermore, PF-4 demonstrates chemotactic properties, attracting neutrophils and monocytes, thereby contributing to immune responses. Notably, it also functions as an inhibitor of endothelial cell proliferation, with the shorter form displaying greater potency than the longer variant. Structurally, PF-4 forms a homotetramer, as evidenced by studies. Additionally, it engages with TNFAIP6 through its Link domain, emphasizing its involvement in intricate molecular interactions. This multifaceted functionality underscores the importance of PF-4/CXCL4 in regulating hemostasis, immune responses, and vascular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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