Data Sheet (Cat.No.TMPY-07241)

TargetMol

CXCL4 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Cxcl4;Scyb4;Pf4
Protein Construction:	A DNA sequence encoding the Mouse PF4 (Q6P8R3) (Val30-Ser105) was expressed, with a polyhistidine tag at the N-terminus. Predicted N terminal: Met
Species:	Mouse
Expression Host:	E. coli
Accession:	Q6P8R3
Molecular Weight:	10.05 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 95% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU per μg protein as determined by the LAL method.
Formulation:	Lyophilized from sterile 1/1000 TFA, 30% Acetonitrile. Please contact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

Platelet factor 4 (PF4), also known as chemokine (C-X-C motif) ligand 4 (CXCL4), is a small cytokine belonging to the CXC chemokine family. CXCL4/PF4 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, CXCL4/PF4 probably has a role in inflammation and

wound repair. This protein is released during platelet aggregation. CXCL4/PF4 neutralizes the anticoagulant effect of heparin because it binds more strongly to heparin than to the chondroitin-4-sulfate chains of the carrier molecule. CXCL4 is chemotactic for neutrophils and monocytes. It inhibits endothelial cell proliferation, the short form is a more potent inhibitor than the longer form. CXCL4/PF4 is up-regulated in human liver fibrosis and that it plays a nonredundant, functional role in experimental liver fibrosis by mediating stellate cell proliferation, migration, and intrahepatic immune cell recruitment.

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