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Anti-PF4 Picoband Antibody

Catalog # ABO11629

Product Information

Application	WB, E
Primary Accession	P02776
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Platelet factor 4(PF4) detection. Tested with WB, ELISA in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	10845
Application Details	ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Secreted.
Source	Eukaryota
Protein Name	Platelet factor 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human PF4 recombinant protein (Position: E32-S101). Human PF4 shares 75.4% amino acid (aa) sequence identity with both mouse and rat PF4.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

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.

Background

Platelet factor 4 (PF4) is a small cytokine belonging to the CXC chemokine family that is also known as chemokine (C-X-C motif) ligand 4 (CXCL4). By in situ hybridization, the CXCL4 gene is mapped to chromosome 4q12-q21. 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, PF4 probably has a role in inflammation and wound repair.

Images



Western blot analysis of PF4 expression in 293T whole cell lysates (lane 1) and A549 whole cell lysates (lane 2). PF4 at 26KD was detected using rabbit anti- PF4 Antigen Affinity purified polyclonal antibody (Catalog # ABO11629) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

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