

## Anti-PF4 Monoclonal Antibody Catalog # ABO14441

### Specification

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#### Anti-PF4 Monoclonal Antibody - Product Information

Application	WB, IHC, IP
Primary Accession	<a href="#">P02776</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

#### Description

Anti-PF4 Monoclonal Antibody . Tested in WB, IHC, IP applications. This antibody reacts with Human, Mouse, Rat.

#### Anti-PF4 Monoclonal Antibody - 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, Endothelial cell growth inhibitor, PF4, CXCL4, SCYB4

#### Application Details

WB 1:500-1:2000<br>IHC 1:50-1:200<br>IP 1:50

#### Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### Immunogen

A synthesized peptide derived from human PF4 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.

#### Purification

Affinity-chromatography

Storage

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

#### Anti-PF4 Monoclonal Antibody - 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:<a href="http://www.uniprot.org/citations/9531587" target="\_blank">9531587</a>, PubMed:<a href="http://www.uniprot.org/citations/29930254" target="\_blank">29930254</a>). Acts via different functional receptors including CCR1, CXCR3A or CXCR3B (PubMed:<a href="http://www.uniprot.org/citations/18174362" target="\_blank">18174362</a>, PubMed:<a href="http://www.uniprot.org/citations/29930254" target="\_blank">29930254</a>). Upon interaction with CXCR3A receptor, induces activated T-lymphocytes migration mediated via downstream Ras/extracellular signal-regulated kinase (ERK) signaling (PubMed:<a href="http://www.uniprot.org/citations/18174362" target="\_blank">18174362</a>, PubMed:<a href="http://www.uniprot.org/citations/24469069" target="\_blank">24469069</a>). 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:<a href="http://www.uniprot.org/citations/9531587" target="\_blank">9531587</a>). Chemotactic for neutrophils and monocytes via CCR1 (PubMed:<a href="http://www.uniprot.org/citations/29930254" target="\_blank">29930254</a>). 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:<a href="http://www.uniprot.org/citations/35701499" target="\_blank">35701499</a>). In addition, induces myofibroblast differentiation and collagen synthesis in different precursor cells, including endothelial cells, by stimulating endothelial-to-mesenchymal transition (PubMed:<a href="http://www.uniprot.org/citations/34986347" target="\_blank">34986347</a>).

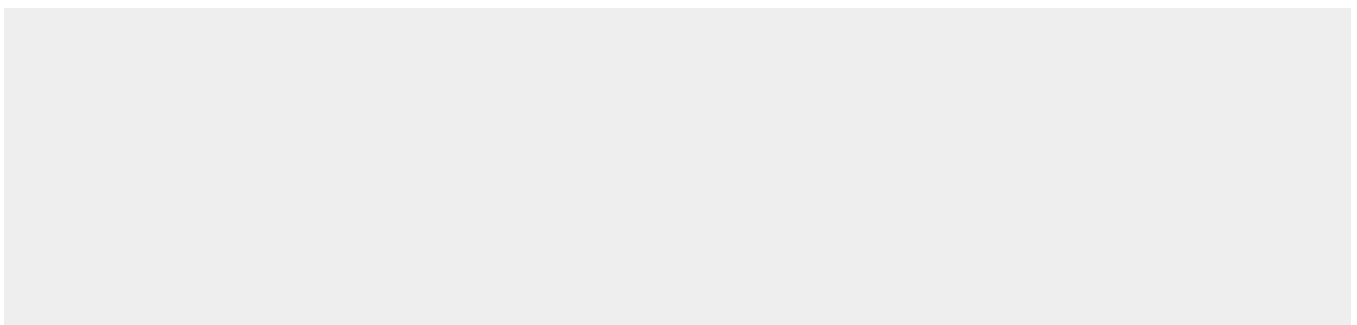
**Cellular Location**

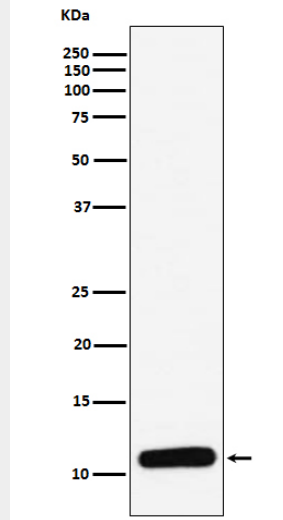
Secreted.

**Anti-PF4 Monoclonal Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-PF4 Monoclonal Antibody - Images**



Western blot analysis of PF4 expression in human spleen lysate.

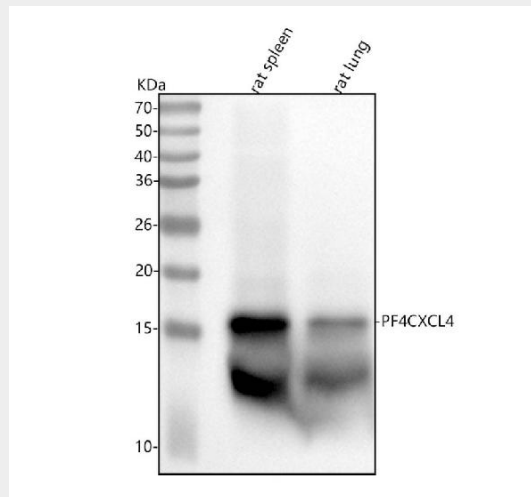


Figure 1. Western blot analysis of PF4 using anti-PF4 antibody (M00871). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat spleen tissue lysates,  
 Lane 2: rat lung tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PF4 antigen affinity purified monoclonal antibody (Catalog # M00871) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for PF4 at approximately 15 kDa. The expected band size for PF4 is at 11 kDa.

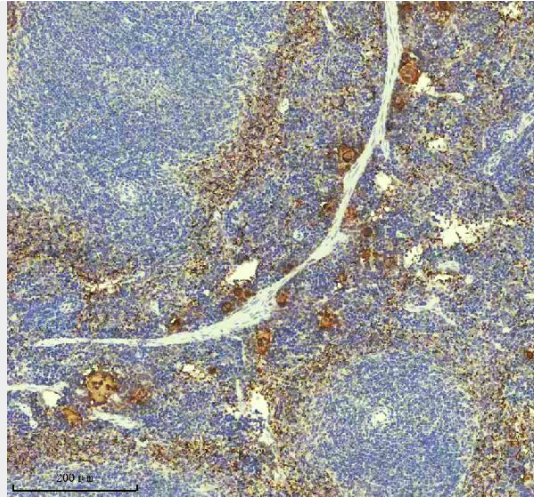


Figure 2. IHC analysis of PF4 using anti-PF4 antibody (M00871).

PF4 was detected in a paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-PF4 Antibody (M00871) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

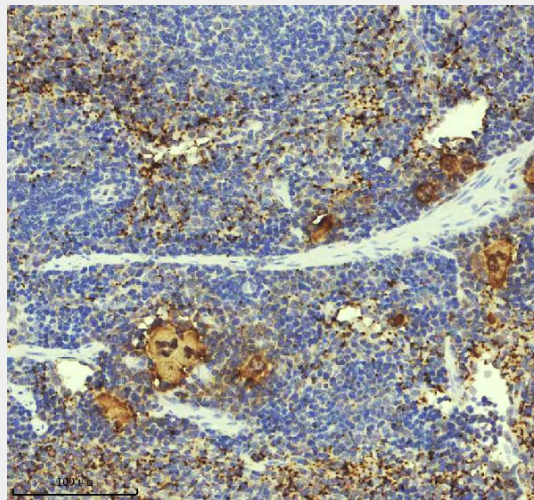


Figure 3. IHC analysis of PF4 using anti-PF4 antibody (M00871).

PF4 was detected in a paraffin-embedded section of mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-PF4 Antibody (M00871) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



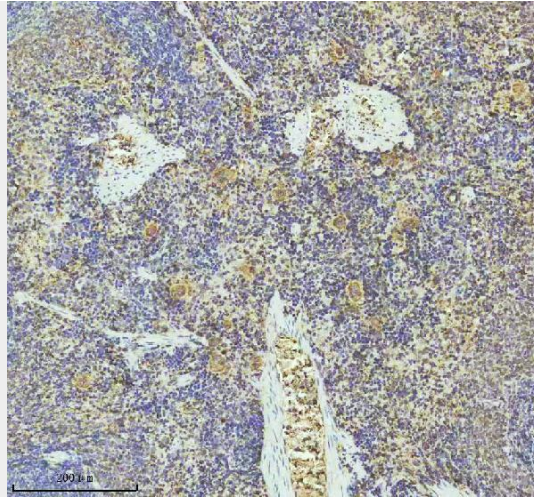


Figure 4. IHC analysis of PF4 using anti-PF4 antibody (M00871).

PF4 was detected in a paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-PF4 Antibody (M00871) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

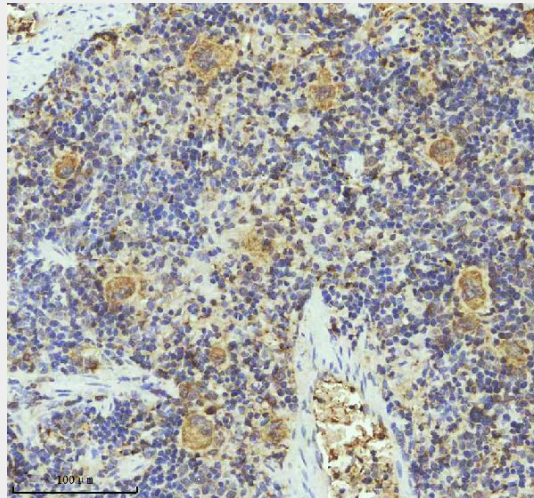


Figure 5. IHC analysis of PF4 using anti-PF4 antibody (M00871).

PF4 was detected in a paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-PF4 Antibody (M00871) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.