**BACKGROUND**

Platelet factor-4 (PF-4 or PF4) is a 70 amino acid protein that is released from the α-granules of activated platelets and binds with high affinity to heparin. Platelets secrete low-molecular-weight PF-4, which binds to and neutralizes heparin and related sulfated glycosaminoglycans (GAGs). 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 chemotactant for neutrophils and fibroblasts, PF-4 probably has a role in inflammation and wound repair. Both PF4 and eotaxin, a specific chemotactant for eosinophils, have been shown to exhibit stronger expression in spleens of adult NOA mice (an animal model of allergic or atopic dermatitis) than in younger mice, parallel to the increase in ulcerative skin lesions in older mice. This suggests that PF4 and eotaxin may play important roles in the etiology of atopic dermatitis. PF-4 is encoded by a small inducible gene (SIG), so called because of its small size and its stimulation with platelet activation. The gene which encodes PF-4 maps to human chromosome 4q13.3.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PF4 (human) mapping to 4q13.3.

**SOURCE**

PF-4 (D-7) is a mouse monoclonal antibody raised against amino acids 27-66 mapping at the N-terminus of PF-4 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

PF-4 (D-7) is recommended for detection of precursor and mature chain of PF-4 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PF-4 siRNA (h): sc-39364, PF-4 shRNA Plasmid (h): sc-39364-SH and PF-4 shRNA (h) Lentiviral Particles: sc-39364-V.

Molecular Weight of PF-4: 10 kDa.

Positive Controls: human platelet extract: sc-363773 or human spleen extract: sc-363779.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

**DATA**

![Western blot analysis of PF-4 expression in human spleen tissue extract (A) and human platelet extract (B).](image)

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.