# Properdin (K-18): sc-67794



The Power to Question

## **BACKGROUND**

The serum complement system (SCS), containing over 30 glycoproteins, influences physiological mechanisms of the body in response to immune complex (the classical pathway), carbohydrate (the lectin pathway) or bacterial (alternative pathway) initiation. Properdin, also known as complement factor P (CFP), PFC, BFP or PFD, is a secreted glycoprotein that participates in positively regulating the alternative pathway of the SCS. Properdin exists as a cyclic polymer with six Thrombospondin type 1 domains and binds to C3 and C5 convertase complexes (C3bBb and (C3b)<sub>n</sub>Bb) functioning to assist in their stabilization. Properdin is also required for the deposition of C3b onto the surface of pathogens. Mutations in the gene encoding Properdin can result in Properdin deficiency (PFD), a disease characterized by higher susceptibility to bacterial infections.

# **CHROMOSOMAL LOCATION**

Genetic locus: CFP (human) mapping to Xp11.23; Cfp (mouse) mapping to X A1.3.

#### SOURCE

Properdin (K-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Properdin of human origin

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67794 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **RESEARCH USE**

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

#### **APPLICATIONS**

Properdin (K-18) is recommended for detection of Properdin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

Properdin (K-18) is also recommended for detection of Properdin in additional species, including canine.

Suitable for use as control antibody for Properdin siRNA (h): sc-72082, Properdin siRNA (m): sc-62863, Properdin shRNA Plasmid (h): sc-72082-SH, Properdin shRNA Plasmid (m): sc-62863-SH, Properdin shRNA (h) Lentiviral Particles: sc-72082-V and Properdin shRNA (m) Lentiviral Particles: sc-62863-V.

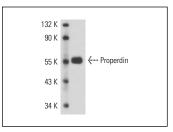
Molecular Weight of Properdin monomer: 53 kDa.

Positive Controls: human PBL whole cell lysate.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## **DATA**



Properdin (K-18): sc-67794. Western blot analysis of Properdin expression in human PBL whole cell lysate.

# **STORAGE**

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

## **PROTOCOLS**

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



Try **Properdin (D-3):** sc-393723 or **Properdin (C-4):** sc-365664, our highly recommended monoclonal alternatives to Properdin (K-18).

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