

## C6 (N-17): sc-70209

### BACKGROUND

The complement cascade is a multi-protein system that functions to clear pathogens from an infected host. Part of the innate (unchanging) immune system, the complement cascade consists of proteins and inactive zymogens that are present in blood and are stimulated by one of several triggers. Once stimulated, the cascade relays amplified responses throughout the body, ultimately activating the cell-killing membrane attack complex which can insert itself into the cell membrane and cause the cell to lyse. C6 (complement component C6) is a 934 amino acid secreted protein that plays a role in the complement cascade, specifically functioning as part of the membrane attack complex. Expressed as two transcript variants, C6 contains one EGF-like domain, one LDL-receptor class A domain, one MACPF domain, two Sushi domains and three TSP type-1 domains. C6 deficiency is correlated with a higher risk of bacterial infection, further supporting the importance of C6 in the innate immune system.

### REFERENCES

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- Haefliger, J.A., et al. 1989. Complete primary structure and functional characterization of the sixth component of the human complement system. Identification of the C5b-binding domain in complement C6. *J. Biol. Chem.* 264: 18041-18051.
- Hobart, M.J., et al. 1993. Structure of the human C6 gene. *Biochemistry* 32: 6198-6205.
- González, S., et al. 1996. Characterization of the human C6 promoter: requirement of the CCAAT enhancer binding protein binding site for C6 gene promoter activity. *J. Immunol.* 157: 2282-2290.
- Chamberlain-Banoub, J., et al. 2006. Complement membrane attack is required for endplate damage and clinical disease in passive experimental myasthenia gravis in Lewis rats. *Clin. Exp. Immunol.* 146: 278-286.
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### CHROMOSOMAL LOCATION

Genetic locus: C6 (human) mapping to 5p13.1; C6 (mouse) mapping to 15 A1.

### SOURCE

C6 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of C6 of human origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-70209 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

C6 (N-17) is recommended for detection of C6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

C6 (N-17) is also recommended for detection of C6 in additional species, including canine.

Suitable for use as control antibody for C6 siRNA (h): sc-72769, C6 siRNA (m): sc-72770, C6 shRNA Plasmid (h): sc-72769-SH, C6 shRNA Plasmid (m): sc-72770-SH, C6 shRNA (h) Lentiviral Particles: sc-72769-V and C6 shRNA (m) Lentiviral Particles: sc-72770-V.

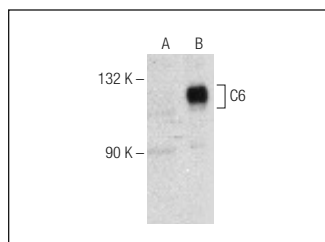
Molecular Weight of C6: 120 kDa.

Positive Controls: human C6 transfected HEK293T whole cell lysate or human platelet extract: sc-363773.

### 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) 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



C6 (N-17): sc-70209. Western blot analysis of C6 expression in non-transfected (A) and human C6 transfected (B) HEK293T whole cell lysates.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.