SANTA CRUZ BIOTECHNOLOGY, INC.

C7 (A-13): sc-160193

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. C7 (complement component 7) is an 843 amino acid secreted protein that participates in the formation of membrane attack complex (MAC), a complex that forms pores in the plasma membrane of target cells for innate and adaptive immune responses. As a membrane anchor, C7 exists as a monomer or dimer and can form multimeric rosettes with C5 . C7 defects are the cause of component C7 deficiency (C7D), characterized by recurrent bacterial infections caused by *Neisseria meningitidis*.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: C7 (human) mapping to 5p13.1; C7 (mouse) mapping to 15 A1.

RESEARCH USE

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

SOURCE

C7 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C7 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-160193 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C7 (A-13) is recommended for detection of C7 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); non cross-reactive with other C family members.

C7 (A-13) is also recommended for detection of C7 in additional species, including equine and bovine.

Suitable for use as control antibody for C7 siRNA (h): sc-91855, C7 siRNA (m): sc-141922, C7 shRNA Plasmid (h): sc-91855-SH, C7 shRNA Plasmid (m): sc-141922-SH, C7 shRNA (h) Lentiviral Particles: sc-91855-V and C7 shRNA (m) Lentiviral Particles: sc-141922-V.

Molecular Weight of C7: 94 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or rat liver extract: sc-2395.

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.

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.