SANTA CRUZ BIOTECHNOLOGY, INC.

C9 (H-210): sc-292164

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

C9 is a plasma protein synthesized in the liver and monocytes consisting of a single polypeptide chain. C9 is a part of the membrane attack complex (MAC), an important component of the immune system. The MAC forms upon complement system activation by invading pathogenic bacteria and consists of the four major complement proteins: C5b, C6, C7 and C8. These complement proteins bind to the outer surface of the plasma membrane of the invading cell. C9 binds to the membrane-associated C5b-8 protein, which leads to the circular polymerization of 12-18 C9 molecules. These polymerized C9 molecules form a ring structure in the membrane. Molecules can then diffuse freely through this transmembrane channel, causing cell lysis and destruction of the invading bacterial cell.

REFERENCES

1. Podack, E.R., et al. 1982. Mem-brane attack complex of complement (MAC): three-dimensional analysis of MAC-phospholipid vesicle recombinants. J. Immunol. 128: 2353-2357.
2. Tschopp, J., et al. 1983. Ultrastructure of the membrane attack complex of tetramolecular C9-polymerizing complex C5b-8. Proc. Natl. Acad. Sci. USA 79: 7474-7478.
3. Hatanaka, M., et al. 1992. Analysis of C5b-8 participation of two separate epitopes of C9 in C5b-8 binding. Mol. Immunol. 29: 911-916.
4. Wood, A., et al. 1993. Specific induction of intracellular calcium oscillations by complement membrane attack on oligodendroglia. J. Neurosci. 13: 3319-3332.
5. Husler, T., et al. 1996. Role of a disulfide-bonded peptide loop within human complement C9 in the species-selectivity of complement inhibitor CD59. Biochemistry 35: 3263-3269.
6. Farkas, I., et al. 2002. CD59 blocks not only the insertion of C9 into MAC but inhibits ion channel formation by homologous C5b-8 as well as C5b-9. J. Physiol. 539: 537-545.

CHROMOSOMAL LOCATION

Genetic locus: C9 (human) mapping to 5p13.1.

SOURCE

C9 (H-210) is a rabbit polyclonal antibody raised against amino acids 350-559 mapping at the C-terminus of C9 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.

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

C9 (H-210) is recommended for detection of C9 of human origin by Western Blotting (starting dilution 1:200, 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).

C9 (H-210) is also recommended for detection of C9 in additional species, including equine.

Suitable for use as control antibody for C9 siRNA (h): sc-62032, C9 shRNA Plasmid (h): sc-62032-SH and C9 shRNA (h) Lentiviral Particles: sc-62032-V.

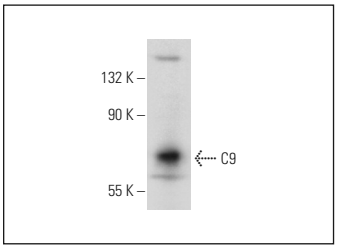
Molecular Weight of C9: 71 kDa.

Positive Controls: human liver extract: sc-363766.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



C9 (H-210): sc-292164. Western blot analysis of C9 expression in human liver tissue extract.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **C9 (E-3): sc-390000** or **C9 (64E9): sc-69761**, our highly recommended monoclonal alternatives to C9 (H-210).