SANTA CRUZ BIOTECHNOLOGY, INC.

C8γ (T-14): sc-107177

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. C8γ (complement component 8, γ polypeptide), also known as C8C or C8G, is one of three polypeptides (along with C8α and C8β) that constitutes C8, a component of the complement system. Consisting of 202 amino acids, C8γ is a secreted protein that is able to bind retinol and belongs to the lipocalin family and calycin superfamily.

REFERENCES

1. Hunt, L.T., et al. 1987. The homology of complement factor C8γ chain and α-1-microglobulin. Biochem. Biophys. Res. Commun. 149: 282-288.
2. Haefliger, J.A., et al. 1987. Structural homology of human complement component C8γ and plasma protein HC: identity of the cysteine bond pattern. Biochem. Biophys. Res. Commun. 149: 750-754.
3. Ng, S.C., et al. 1987. The eighth component of human complement: evidence that it is an oligomeric serum protein assembled from products of three different genes. Biochemistry 26: 5229-5233.
4. Kaufman, K.M., et al. 1989. Chromosomal assignment of genes encoding the α, β, and γ subunits of human complement protein C8: identification of a close physical linkage between the α and the β loci. Genomics 5: 475-480.
5. Chan, P., et al. 1994. Comparative mapping of lipocalin genes in human and mouse: the four genes for complement C8γ chain, prostaglandin-D-synthase, oncogene-24p3, and progestagen-associated endometrial protein map to HSA9 and MMU2. Genomics 23: 145-150.

CHROMOSOMAL LOCATION

Genetic locus: C8g (mouse) mapping to 2 A3.

SOURCE

C8γ (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of C8γ of mouse 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-107177 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

C8γ (T-14) is recommended for detection of C8γ of mouse and rat 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); non cross-reactive with family members C8α or C8β.

Suitable for use as control antibody for C8γ siRNA (m): sc-141933, C8γ shRNA Plasmid (m): sc-141933-SH and C8γ shRNA (m) Lentiviral Particles: sc-141933-V.

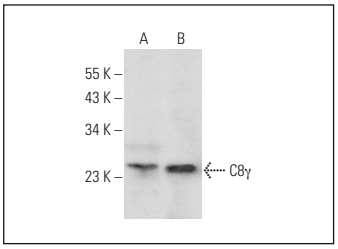
Molecular Weight of C8γ: 22 kDa.

Positive Controls: rat prostate extract: sc-364809 or mouse colon extract: sc-364238.

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



C8γ (T-14): sc-107177. Western blot analysis of C8γ expression in mouse colon (**A**) and rat prostate (**B**) tissue extracts.

RESEARCH USE

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

PROTOCOLS

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