SANTA CRUZ BIOTECHNOLOGY, INC.

C8y (V-14): sc-107178



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. C8y (complement component 8, γ polypeptide), also known as C8C or C8G, is one of three polypeptides (along with C8 α and C8 β) that constitutes C8, a component of the complement system. Consisting of 202 amino acids, C8y is a secreted protein that is able to bind retinol and belongs to the lipocalin family and calycin superfamily.

REFERENCES

- 1. Hunt, L.T., Elzanowski, A. and Barker, W.C. 1987. The homology of complement factor C8 γ chain and α -1-microglobulin. Biochem. Biophys. Res. Commun. 149: 282-288.
- 2. Haefliger, J.A., Jenne, D., Stanley, K.K. and Tschopp, J. 1987. Structural homology of human complement component C8y and plasma protein HC: identity of the cysteine bond pattern. Biochem. Biophys. Res. Commun. 149: 750-754.
- 3. Ng, S.C., Rao, A.G., Howard, O.M. and Sodetz, J.M. 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., Snider, J.V., Spurr, N.K., Schwartz, C.E. and Sodetz, J.M. 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., Simon-Chazottes, D., Mattei, M.G., Guenet, J.L. and Salier, J.P. 1994. Comparative mapping of lipocalin genes in human and mouse: the four genes for complement C8y chain, prostaglandin-D-synthase, oncogene-24p3, and progestagen-associated endometrial protein map to HSA9 and MMU2. Genomics 23: 145-150.
- 6. Dewald, G., Cichon, S., Bryant, S.P., Hemmer, S., Nöthen, M.M. and Spurr, N.K. 1996. The human complement C8G gene, a member of the lipocalin gene family: polymorphisms and mapping to chromosome 9q34.3. Ann. Hum. Genet. 60: 281-291.
- 7. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 120930. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 8. Chiswell, B., Lovelace, L.L., Brannen, C., Ortlund, E.A., Lebioda, L. and Sodetz, J.M. 2007. Structural features of the ligand binding site on human complement protein C8y: a member of the lipocalin family. Biochim. Biophys. Acta 1774: 637-644.

CHROMOSOMAL LOCATION

Genetic locus: C8G (human) mapping to 9q34.3.

SOURCE

C8y (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of C8y of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-107178 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

C8y (V-14) is recommended for detection of C8y of 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 family members $C8\alpha$ or $C8\beta$.

C8y (V-14) is also recommended for detection of C8y in additional species, including porcine.

Suitable for use as control antibody for C8y siRNA (h): sc-92621, C8y shRNA Plasmid (h): sc-92621-SH and C8y shRNA (h) Lentiviral Particles: sc-92621-V.

Molecular Weight of C8y: 22 kDa.

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.

RESEARCH USE

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

MONOS Try C8y (H-10): sc-515150, our highly recommended Satisfation monoclonal alternative to C8y (V-14). Guaranteed