[0015] In another aspect, the invention comprises a method for treating or preventing an indication in a patient in need of treatment or prevention, the method comprising administering to the patient, an effective amount of at least one anti-complement C5 antibody. In one embodiment, the indication is age-related macular degeneration (AMD). In another embodiment, the disease or disorder in a patient in need of treatment or prevention is an ocular condition.

[0015a] In another aspect, there is provided the use of an effective amount of the antibody as disclosed herein in the manufacture of a medicament for treating or preventing an indication in a patient in need of treatment or prevention.

[0015b] In another aspect, there is provided the use of the antibody as described herein, or the pharmaceutical composition as described herein , in the manufacture of a medicament for treating or preventing an indication associated with complement activation in a patient in need of treatment or prevention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] Figure 1 shows a schematic of the Complement Pathway.

[0017] Figure 2 shows a schematic of MAC formation and shows the mechanism of a monoclonal antibody therapeutic in blocking MAC but not C5a generation

[0018] Figure 3 shows percent inhibition of MAC by anti-C5 antibody sub-clones.

[0019] Figures 4A and 4B show percent inhibition of MAC by anti-C5 antibody sub-clones.

[0020] Figures 5A, 5B, and 5C show percent inhibition of MAC by anti-C5 antibody sub-clones.

[0021] Figures 6A, 6B and 6C show the generation of C5a inhibition by examining single point determinations or by titration of the antibody.

[0022] Figure 7 shows dose dependent interaction of monoclonal antibodies with C5 directly coated on to an ELISA plates.

[0023] Figure 8 shows binding affinities of anti-C5 monoclonal antibodies to C5.

[0024] Figure 9 shows the binding of the monoclonal antibodies to C5 protein in solution using Bio-Layer Interferometry (BLI).

[0025] Figure 10 shows ability to recognize C5 with in the C5b-9 complex when deposited into the bottom of ELISA plates after complement activation with IgM.

[0026] Figures 11a and 11b show the ability of the monoclonal antibodies to bind soluble C5b-9 using Bio-Layer Interferometry (BLI) technology.

[0027] Figures 12A, 12B and 12C show inhibition of MAC for full-length antibodies with humanized heavy and light chains of 10C9.

[0028] Figure 13A, 13B, and 13C show activity of Fab fragments with humanized heavy and light chains of 10C9.

WE CLAIM:

1. An anti-C5 antibody, wherein the antibody binds to C5 and inhibits complement dependent hemolysis, but does not block C5a formation.

2. The antibody of claim 1, wherein the antibody blocks C5 binding to human Complement Component 6 and/or 7; and/or
wherein the antibody inhibits formation of membrane attack complex (MAC).

3. The antibody of claim 1 or 2, wherein the antibody comprises a first amino acid sequence and a second amino acid sequence:

(a) the first sequence comprising:

(i) a CDR1 selected from the group consisting of SEQ ID NOs:13, 19, 25, 31, 37, and 43;

(ii) a CDR2 selected from the group consisting of amino acids sequence GTS (SEQ ID Nos: 14 and 20),
SGS (SEQ ID NO: 26), RTS (SEQ ID NO: 32), YTS (SEQ ID NO: 38) and WAS (SEQ ID NO: 44); and

(iii) a CDR3 selected from the group consisting of SEQ ID NOs:15, 21, 27, 33, 39 and 45; and

(b) the second sequence comprising:

(i) a CDR1 selected from the group consisting of SEQ ID NOs: 16, 22, 28, 34, 40, and 46;

(ii) a CDR2 selected from the group consisting of SEQ ID NOs:17, 23, 29, 35, 41and 47; and

(iii) a CDR3 selected from the group consisting of SEQ ID NOs:18, 24, 30, 36, 42, and 48.

4. The antibody of claim 3, further comprising a heavy chain and a light chain wherein the light chain comprises an amino acid sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, and 11; and the heavy chain comprises

an amino acid sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, and 12.

5. The antibody of any one or more or the preceding claims, wherein the antibody comprises a light chain and a heavy chain variable domain selected from the light chain and heavy chain variable sequences: SEQ ID NO: 1/ SEQ ID NO: 2; SEQ ID NO: 3/ SEQ ID NO:4; SEQ ID NO: 5/ SEQ ID NO:6; SEQ ID NO: 7/ SEQ ID N0: 8; SEQ ID NO: 9/ SEQ ID NO: 10; and SEQ ID NO: 11/ SEQ ID NO: 12, and SEQ ID NO: 3/ SEQ ID NO: 10.

6. The antibody of any one or more of the preceding claims, wherein the antibody is a monoclonal antibody, a polyclonal antibody, a recombinant antibody, a humanized antibody, a chimeric antibody, a multispecific antibody, or an antibody fragment thereof, or wherein the antibody is an antibody fragment and the antibody fragment is a Fab fragment, a Fab' fragment, a F(ab')2 fragment, a Fv fragment, a diabody, or a single chain antibody molecule, and/or
wherein said antibody is of the lgG1-, lgG2-, lgG3- or lgG4-type, preferably an lgG1-type.

7. The antibody of any one or more of the preceding claims, wherein the antibody is coupled to a labelling group, preferably wherein the labelling group is selected from an optical label, radioisotope, radionuclide, an enzymatic group, and a biotinyl group.

8. A process for preparing an isolated antibody according to any one or more of the preceding claims, comprising preparing said antibody from a host cell that secretes said antibody.

9. A nucleic acid molecule encoding an isolated antibody according to any one or more of the preceding claims.

10. The nucleic acid molecule according to claim 9, wherein the nucleic acid molecule is operably linked to a control sequence.

11. A pharmaceutical composition comprising at least one antibody according to any one or more of the preceding claims 1-7, and pharmaceutically acceptable carrier.

12. The pharmaceutical composition of claim 11, further comprising an additional active agent.

13. Use of the antibody of any one or more of the preceding claims 1-7, or the pharmaceutical composition according to claim 11 or 12 , in the manufacture of a medicament for treating or preventing an indication associated with complement activation in a patient in need of treatment or prevention.

14. The use of claim 13, wherein the condition is an ocular condition.

15. The use of claim 14, wherein the condition is age-related macular degeneration.