SEQ ID NO:29; SEQ ID NO:26/ SEQ ID NO:30; and SEQ ID NO:26/ SEQ ID NO:31; SEQ ID NO:27/ SEQ ID NO:28; SEQ ID NO:27/ SEQ ID NO:29; SEQ ID NO:27/ SEQ ID NO:30; and SEQ ID NO:27/ SEQ ID NO:31.

[0015] In another aspect, the anti-Factor Bb antibody of the invention is a monoclonal antibody, a polyclonal antibody, a recombinant antibody, a humanized antibody, a chimeric antibody, a multispecific antibody, or an antibody fragment. In another aspect, the anti-Factor Bb antibody of the invention is a Fab fragment, a Fab' fragment, a $F(ab')_2$ fragment, a Fv fragment, a diabody, or a single chain antibody molecule. In another aspect, the anti-Factor Bb antibody of the invention is of the IgG1, IgG2, IgG3, or IgG4 type. In another aspect, the anti-Factor Bb antibody of the invention is coupled to a labeling group. That labeling group can be an optical label, a radioisotope, a radionuclide, an enzymatic group, or a biotinyl group.

[0016] In another embodiment, the invention is a process for preparing an isolated antibody of the invention that comprises preparing the antibody of the invention form a host cell that secretes the antibody. In one aspect, this means to isolate or purify the antibody from the cell culture medium in which the host cell is grown.

[0017] In another embodiment, the invention is a nucleic acid molecule encoding an isolated antibody of the invention. In one aspect, the nucleic acid molecule encoding the antibody of the invention is operable linked to a control sequence.

[0018] In another embodiment, the invention is a pharmaceutical composition that comprises at least one antibody of the invention and a pharmaceutically acceptable carrier. In one aspect, the pharmaceutical composition may also comprise an additional active agent.

[0019] In another embodiment, the invention is a method for treating or preventing a condition in a patient in need of treatment or prevention comprising administering to said patient an effective amount of at least one anti-Factor Bb antibody of the invention and thereby treating or preventing the condition. In one aspect, the condition is an ocular disease. In another aspect, the condition is age-related macular degeneration (AMD).

[0019a] In another embodiment, the invention is a Factor Bb antibody, comprising a heavy chain and a light chain, wherein the antibody binds to Factor Bb with greater affinity than to Factor B; and inhibits complement dependent hemolysis; and wherein either:

a. the light chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:8-11; and wherein the heavy chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 12-15;

or

b. the light chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:24-27; and wherein the heavy chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:28-31.

[0019b] In another embodiment, the invention is a process for preparing an isolated antibody as disclosed herein, comprising preparing said antibody from a host cell that secretes said antibody.

[0019c] In another embodiment, the invention is the use of an effective amount of the antibody as disclosed herein in the manufacture of a medicament for treating or preventing a condition in a patient in need of treatment or prevention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Figure 1 depicts the binding analysis of an anti-Factor Bb monoclonal antibody, using

[0021] Figure 2 shows the results of a hemolysis assay using either anti-Factor B or anti-Factor Bb antibodies in the presence of 10% normal human serum.

WE CLAIM:

1. A Factor Bb antibody, wherein the antibody binds to Factor Bb with greater affinity than to Factor B; and inhibits complement dependent hemolysis.

2. The antibody of claim 1, that binds Factor Bb with a K.d of less than about 1 nM.

3. The antibody of claim 1, wherein the antibody blocks formation of membrane attack complex (MAC) in a patient.

4. The antibody of claim 1 comprising a heavy chain and a light chain.

5. The antibody of claim 4, 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:8-11; and wherein the heavy chain comprises an amino acid sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO:12-15.

6. The antibody of claim 4, 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:24-27; and wherein the heavy chain comprises an amino acid sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO:28-31.

7. The antibody of claim 4, wherein the antibody is an antibody comprising a heavy chain and a light chain variable domain selected from the heavy and light chain variable sequences: SEQ ID NO:8/ SEQ ID NO:12; SEQ ID NO:8/ SEQ ID NO:13; SEQ ID NO:8/ SEQ ID NO:14; SEQ ID NO:8/ SEQ ID NO:15; SEQ ID NO:9/ SEQ ID NO:12; SEQ ID NO:9/ SEQ ID NO:13; SEQ ID NO:9/ SEQ ID NO:14; SEQ ID NO:9/ SEQ ID NO:15; SEQ ID NO:10/ SEQ ID NO:12; SEQ ID NO:10/ SEQ ID NO:13; SEQ ID NO:10/ SEQ ID NO:14; and SEQ ID NO:10/ SEQ ID NO:15; SEQ ID NO:11/ SEQ ID NO:12; SEQ ID NO:11/ SEQ ID NO:13; SEQ ID NO:11/ SEQ ID NO:14; and SEQ ID NO:11/ SEQ ID NO:15.

8. The antibody of claim 4, wherein the antibody is an antibody comprising a heavy chain and a light chain variable domain selected from the light and heavy chain variable domain amino acid sequences: SEQ ID NO:24/ SEQ ID NO:28; SEQ ID NO:24/ SEQ ID NO:29; SEQ ID NO:24/ SEQ ID NO:30; SEQ ID NO:24/ SEQ ID NO:31; SEQ ID NO:25/ SEQ ID NO:28; SEQ ID NO:25/ SEQ ID NO:29; SEQ ID NO:25/ SEQ ID NO:30; SEQ ID NO:25/ SEQ ID NO:31; SEQ ID NO:26/ SEQ ID NO:28; SEQ ID NO:26/ SEQ ID NO:29; SEQ ID NO:26/ SEQ ID NO:30; and SEQ ID NO:26/ SEQ ID NO:31; SEQ ID NO:27/ SEQ ID NO:28; SEQ ID NO:27/ SEQ ID NO:29; SEQ ID NO:27/ SEQ ID NO:30; and SEQ ID NO:27/ SEQ ID NO:31.

9. The antibody of claim 4, wherein antibody comprises a light chain variable domain amino acid sequence of SEQ ID NO:11 and a heavy chain variable domain amino acid sequence of SEQ ID NO:15.

10. The antibody of claim 1, wherein said 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.

11. The antibody of claim 10, wherein said 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.

12. The antibody of claim 10, wherein said antibody is of the IgG1-, IgG2- IgG3- or IgG4-type.

13. The antibody of claim 1, wherein said antibody is coupled to a labeling group.

14. A process for preparing an isolated antibody of claim 1, comprising preparing said antibody from a host cell that secretes said antibody.

15. A nucleic acid molecule encoding an isolated antibody of claim 1.

16. A pharmaceutical composition comprising the antibody of claim 1 and pharmaceutically acceptable carrier.

17. The pharmaceutical composition of claim 16, further comprising an additional active agent.

18. A method for treating or preventing a condition in a patient in need of treatment or prevention comprising administering to said patient an effective amount of the antibody of claim 1; and thereby treating or preventing the condition.

19. The method of claim 18, wherein the condition is an ocular disease.

20. The method of claim 19, wherein the condition is age-related macular degeneration (AMD).

CLAIMS

1. A Factor Bb antibody, comprising a heavy chain and a light chain, wherein the antibody binds to Factor Bb with greater affinity than to Factor B; and inhibits complement dependent hemolysis; and wherein either:

a. the light chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:8-11; and wherein the heavy chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 12-15;

or

b. the light chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:24-27; and wherein the heavy chain comprises an amino acid sequence selected from the group consisting of SEQ ID NO:28-31.

2. The antibody of claim 1, that binds Factor Bb with a K_d of less than about 1 nM.

3. The antibody of claim 1, wherein the antibody blocks formation of membrane attack complex (MAC) in a patient.

4. The antibody of claim 1, wherein the antibody is an antibody comprising a light chain variable domain and a heavy chain variable domain selected from the light chain and heavy chain variable domain amino acid sequences: SEQ ID NO:8/ SEQ ID NO: 12; SEQ ID NO:8/ SEQ ID NO: 13; SEQ ID NO:8/SEQ ID NO:14; SEQ ID NO:8/ SEQ ID NO:15; SEQ ID NO:9/ SEQ ID NO:12; SEQ ID NO:9/SEQ ID NO:13; SEQ ID NO:9/ SEQ ID NO:14; SEQ ID NO:9/ SEQ ID NO:15; SEQ ID NO:10/SEQ ID NO:12; SEQ ID NO:10/SEQ ID NO:13; SEQ ID NO:10/SEQ ID NO:14; and SEQ ID NO:10/SEQ ID NO:15; SEQ ID NO:11/SEQ ID NO:12; SEQ ID NO:11/SEQ ID NO:13; SEQ ID NO:11/SEQ ID NO:14; and SEQ ID NO:11/ SEQ ID NO:15.

5. The antibody of claim 1, wherein the antibody is an antibody comprising a light chain variable domain and a heavy chain variable domain selected from the light chain

and heavy chain variable domain amino acid sequences: SEQ ID NO:24/ SEQ ID NO:28; SEQ ID NO:24/SEQ ID NO:29; SEQ ID NO:24/SEQ ID NO:30; SEQ ID NO:24/SEQ ID NO:31; SEQ ID NO:25/SEQ ID NO:28; SEQ ID NO:25/SEQ ID NO:29; SEQ ID NO:25/SEQ ID NO:30; SEQ ID NO:25/SEQ ID NO:31; SEQ ID NO:26/SEQ ID NO:28; SEQ ID NO:26/ SEQ ID NO:29; SEQ ID NO:26/SEQ ID NO:30; and SEQ ID NO:26/SEQ ID NO:31; SEQ ID NO:27/SEQ ID NO:28; SEQ ID NO:27/SEQ ID NO:29; SEQ ID NO:27/SEQ ID NO:30; and SEQ ID NO:27/SEQ ID NO:31.

6. The antibody of claim 1, wherein the antibody comprises a light chain variable domain amino acid sequence of SEQ ID NO:11 and a heavy chain variable domain amino acid sequence of SEQ ID NO:15.

7. The antibody of claim 1, wherein said 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.

8. The antibody of claim 7, wherein said 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.

9. The antibody of claim 7, wherein said antibody is of the IgG1-, IgG2- IgG3- or IgG4-type.

10. The antibody of claim 1, wherein said antibody is coupled to a labeling group.

11. A process for preparing an isolated antibody of claim 1, comprising preparing said antibody from a host cell that secretes said antibody.

12. A nucleic acid molecule encoding an isolated antibody of claim 1.

13. A pharmaceutical composition comprising the antibody of claim 1 and pharmaceutically acceptable carrier.

14. The pharmaceutical composition of claim 13, further comprising an additional active agent.

15. Use of an effective amount of the antibody of claim 1 in the manufacture of a medicament for treating or preventing a condition in a patient in need of treatment or prevention.

16. The use of claim 15, wherein the condition is an ocular disease.

17. The use of claim 16, wherein the condition is age-related macular degeneration (AMD).

18. The antibody of claim 1, wherein the antibody comprises a light chain variable domain amino acid sequence of SEQ ID NO:25 and a heavy chain variable domain amino acid sequence of SEQ ID NO:30.