CLAIMS

1. A method for the prevention or treatment of a complement-associated disorder comprising administering to a subject in need an effective amount of an anti-C3b antibody or antigen binding-fragment or affinity matured variant thereof selectively binding to C3b and not to C3 and inhibiting the binding of C5 to C3b, wherein said antibody comprises the heavy chain CDRH1, CDRH2 and CDRH3 sequences of SEQ ID NOS 2, 3, and 4, respectively and the light chain CDRL1, CDRL2 and CDRL3 sequences of SEQ ID NOS 6, 7, and 8, respectively.

2. The method of claim 1 wherein said subject is a mammal.

3. The method of claim 2 wherein said subject is a human.

4. The method of claim 3 wherein said antibody is a human, humanized or chimeric antibody.

5. The method of claim 3 wherein said antibody fragment is selected from the group consisting of Fab, Fab', $F(ab')_2$, scFv, $(scFv)_2$, dAb, complementarity determining region (CDR) fragments, linear antibodies, single-chain antibody molecules, minibodies, diabodies, and multispecific antibodies formed from antibody fragments.

6. The method of claim 5 wherein said antibody fragment is a Fab, Fab', $F(ab')_2$, scFv, or $(scFv)_2$ fragment.

7. The method of claim 3, wherein the antibody is antibody YW144.2.43S77 or a Fab fragment thereof.

8. The method of claim 3 wherein said complement-associated disorder is an inflammatory disease or an autoimmune disease.

9. The method of claim 3 wherein said complement-associated disorder is selected from the group consisting of rheumatoid arthritis (RA), acute respiratory distress syndrome (ARDS), remote tissue injury after ischemia and reperfusion, complement

activation during cardiopulmonary bypass surgery, dermatomyositis, pemphigus, lupus nephritis and resultant glomerulonephritis and vasculitis, cardiopulmonary bypass, cardioplegia-induced coronary endothelial dysfunction, type II membranoproliferative glomerulonephritis, IgA nephropathy, acute renal failure, cryoglobulemia, antiphospholipid syndrome, macular degenerative diseases, such as age-related macular degeneration (AMD), choroidal neovascularization (CNV), uveitis, diabetic and other ischemia-related retinopathies, endophthalmitis, and other intraocular neovascular diseases, such as diabetic macular edema, pathological myopia, von Hippel-Lindau disease, histoplasmosis of the eye, Central Retinal Vein Occlusion (CRVO), corneal neovascularization, retinal neovascularization, as well as allo-transplantation, hyperacute rejection, hemodialysis, chronic occlusive pulmonary distress syndrome (COPD), asthma, and aspiration pneumonia.

10. The method of claim 3 wherein said complement-associated disorder is a complement-associated eye condition.

11. The method of claim 10 wherein the complement-associated eye condition is age-related macular degeneration (AMD) or choroidal neovascularization (CNV).

CLAIMS

1. A method for inhibiting the alternative pathway of complement activation comprising administering to a subject in need an effective amount of an isolated anti-C3b antibody or antigen-binding fragment thereof that selectively binds to C3b and not to C3 and inhibits the binding of C5 to C3b, wherein said antibody comprises the heavy chain CDRH1, CDRH2 and CDRH3 sequences of SEQ ID NOS 2, 3, and 4, respectively, and the light chain CDRL1, CDRL2 and CDRL3 sequences of SEQ ID NOS 6, 7, and 8, respectively.

2. The method of claim 1 wherein said subject is a human.

3. The method of claim 1 wherein said antibody binds to an epitope including residues of the C3b epitope recognized by antibody S77.

4. The method of claim 1 wherein said antibody binds to the same epitope as antibody S77.

5. The method of claim 1 wherein said antibody competitively inhibits the binding of antibody S77.

6. The method of claim 1 wherein said antibody binds to a C3b epitope comprising residues that are in contact with antibody S77.

7. The method of claim 1 wherein said antibody comprises an antigen binding site comprising antibody S77 residues that are in contact with C3b.

8. The method of claim 1 wherein the antibody or antigen-binding fragment is human, humanized or chimeric.

9. The method of claim 1 wherein said antigen binding fragment is selected from the group consisting of Fab, Fab', $F(ab')_2$, scFv, $(scFv)_2$, dAb, a linear antibody, single-chain antibody molecule, minibody and diabody.

10. The method of claim 9 wherein said antigen binding fragment is a Fab, Fab', $F(ab')_2$, scFv, or $(scFv)_2$ fragment.

11. The method of claim 2 wherein said subject has a complement associated inflammatory disease.

12. The method of claim 2 wherein said complement-associated disorder is a complement-associated eye condition.

13. The method of claim 12 wherein the subject has age-related macular degeneration (AMD) or choroidal neovascularization (CNV).

14. The method of claim 1 wherein the antibody or antigen-binding fragment is antibody YW144.2.43S77 or a Fab fragment thereof.