CLAIMS

1. An antibody or antigen binding fragment thereof that binds to C3b comprising three complementarity determining regions (CDR1 to CDR3, respectively), wherein the CDR1 comprises SEQ ID NO: 16, CDR2 comprises SEQ ID NO: 17 and CDR3 comprises SEQ ID NO: 18 by Kabat convention.

2. An antibody or antigen binding fragment thereof that binds to C3b comprising three complementarity determining regions (CDR1 to CDR3, respectively), wherein the CDR1 comprises SEQ ID NO: 16, CDR2 comprises SEQ ID NO: 26 and CDR3 comprises SEQ ID NO: 22 by Kabat convention.

3. An antibody or antigen binding fragment thereof that binds to C3b comprising three complementarity determining regions (CDR1 to CDR3, respectively), wherein the CDR1 comprises SEQ ID NO: 16, CDR2 comprises SEQ ID NO: 21 and CDR3 comprises SEQ ID NO: 22 by Kabat convention.

4. An antibody or antigen binding fragment thereof that binds to C3b comprising three complementarity determining regions (CDR1 to CDR3, respectively), wherein the CDR1 comprises SEQ ID NO: 16, CDR2 comprises SEQ ID NO: 24 and CDR3 comprises SEQ ID NO: 22 by Kabat convention.

5. An antibody or antigen binding fragment thereof that binds to complement component 3b (C3b) comprising an amino acid sequence at least 90% identical to any of SEQ ID NOs: 10-13.

6. The antibody or antigen binding fragment thereof of claim 5, wherein the antibody or antigen binding fragment thereof is a VHH, and the VHH comprises SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, or SEQ ID NO: 13.

7. The antibody or antigen binding fragment thereof of any one of claims 1-5, further comprising an Fc domain, wherein the Fc domain is derived from IgG1, IgG2, IgG3, or IgG4.

8. The antibody or antigen binding fragment thereof of claim 7, wherein the Fc domain is modified.

9. The antibody or antigen binding fragment thereof of claim 8, wherein the Fc domain comprises T307Q, Q311V and/or A378V mutation, wherein the Fc domain numbering is according to the EU index.

10. The antibody or antigen binding fragment thereof of claim 8, wherein the Fc domain comprises S228P mutation, wherein the Fc domain numbering is according to the EU index.

11. The antibody or antigen binding fragment thereof of claim 8, wherein the Fc domain comprises substitutions at positions F234, L235 and/or D265, wherein the Fc domain numbering is according to the EU index.

12. The antibody or antigen binding fragment thereof of claim 8, wherein the Fc domain comprises S228P, F234V, L235E, D265G, T307Q, Q311V, and A378V mutations.

13. The antibody or antigen binding fragment thereof of claim 12, wherein the Fc domain comprises an amino acid sequence of SEQ ID NO: 14.

14. The antibody or antigen binding fragment thereof of any one of claims 1-5, wherein the antibody or a fragment thereof inhibits formation of C3 convertase and/or C5 convertase, does not bind to C3 protein, and/or inhibits the activity of C3 convertase.

15. The antibody or antigen binding fragment thereof of any one of claims 1-5, comprising an amino acid sequence at least 90% identical to any one of SEQ ID NOs: 4-9.

16. The antibody or antigen binding fragment thereof of claim 15, comprising SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, or SEQ ID NO: 9.

17. A nucleic acid encoding the antibody or antigen binding fragment thereof of any one of claims 1-5.

18. The nucleic acid of claim 17, wherein the nucleic acid is DNA, cDNA, RNA, or messenger RNA (mRNA).

19. A composition comprising the nucleic acid of claim 17, and a delivery vehicle, optionally wherein the delivery vehicle is an adeno-associated virus (AAV) vector or a lipid nanoparticle (LNP).

20. The antibody or antigen binding fragment thereof of any one of claims 1-5 for use in treating a complement mediated disease or disorder in a subject in need thereof, wherein the antibody or antigen binding fragment thereof is to be administered in a therapeutically effective amount to the subject.

21. Use of the antibody or antigen binding fragment thereof of any one of claims 1-5 for the manufacture of a medicament for treating a complement mediated disease or disorder in a subject in need thereof.

22. The antibody or antigen binding fragment thereof for use according to claim 20, wherein the complement mediated disease or disorder is C3 glomerulopathy or a disease or disorder associated with C3 glomerulopathy, dense deposit disease (DDD), C3 glomerulonephritis (C3GN), an accumulation of the C3 component of complement in renal tissue, symptomatic hematuria, proteinuria, acute kidney injury (AKI), or chronic kidney disease (CKD), paroxysmal nocturnal hemoglobinuria, geographic atrophy, or autoimmune hemolytic anemia (AIHA), age-related macular degeneration (AMD), or Passive Heymann Nephritis (PHN).

23. The use according to claim 21, wherein the complement mediated disease or disorder is C3 glomerulopathy or a disease or disorder associated with C3 glomerulopathy, dense deposit disease (DDD), C3 glomerulonephritis (C3GN), an accumulation of the C3 component of complement in renal tissue, symptomatic hematuria, proteinuria, acute kidney injury (AKI), or chronic kidney disease (CKD), paroxysmal nocturnal hemoglobinuria, geographic atrophy, or autoimmune hemolytic anemia (AIHA), age-related macular degeneration (AMD), or Passive Heymann Nephritis (PHN).