

WE CLAIM:

1. An antibody that binds human CD200R, comprising a heavy chain variable region (HCVR) and a light chain variable region (LCVR),
5 wherein the HCVR comprises a HCDR1, HCDR2, and HCDR3, and the LCVR comprises a LCDR1, LCDR2, and LCDR3, wherein the amino acid sequence of the HCDR1 is given by SEQ ID NO: 1, the amino acid sequence of the HCDR2 is given by SEQ ID NO: 2, and the amino acid sequence of the HCDR3 is given by SEQ ID NO: 3, the amino acid
10 sequence of the LCDR1 is given by SEQ ID NO: 4, the amino acid sequence of the LCDR2 is given by SEQ ID NO: 5, and the amino acid sequence of the LCDR3 is given by SEQ ID NO: 6.
2. The antibody of Claim 1, comprising a HCVR and a LCVR, wherein the amino acid sequence of the HCVR is given by SEQ ID NO: 7 and the
15 amino acid sequence of the LCVR is given by SEQ ID NO: 8.
3. The antibody of Claim 2, wherein Xaa at position 1 of SEQ ID NO: 7 is glutamine.
4. The antibody of Claim 2, wherein Xaa at position 1 of SEQ ID NO: 7 is pyroglutamic acid.
- 20 5. The antibody of any one of Claims 1-4, wherein the antibody does not cause significant cytokine release.
6. The antibody of any one of Claims 1- 5, wherein the antibody is a CD200R agonist antibody.
7. The antibody of any one of Claims 1- 6, wherein the antibody binds at
25 least three of Fcγ RI, Fcγ RIIA_131H, Fcγ RIIA_131R, Fcγ RIIB, and Fcγ RIIIA_158V.
8. The antibody of any one of Claims 1- 7, wherein the antibody binds at least four of Fcγ RI, Fcγ RIIA_131H, Fcγ RIIA_131R, Fcγ RIIB, and Fcγ RIIIA_158V.
- 30 9. The antibody of any one of Claims 7-8, wherein the binding affinities are:
 - (i) ~~about~~70 pM to ~~about~~500 pM to Fcγ RI;
 - (ii) ~~about~~2 μM to ~~about~~5 μM to Fcγ RIIA_131H;

- (iii) ~~about~~ 1 μ M to ~~about~~ 5 μ M to Fc γ RIIA_131R;
 - (iv) ~~about~~ 1 μ M to ~~about~~ 4 μ M to Fc γ RIIB;
 - (v) ~~about~~ 1 μ M to ~~about~~ 6 μ M to Fc γ RIIIA_158V; and
 - (vi) greater than 9 μ M to Fc γ RIIIA_158F.
- 5 10. The antibody of any one of Claims 7-9, wherein the binding affinities are:
- (i) about 400 pM to Fc γ RI;
 - (ii) about 4 μ M to Fc γ RIIA_131H;
 - (iii) about 2 μ M to Fc γ RIIA_131R;
 - (iv) about 2 μ M to Fc γ RIIB;
 - 10 (v) about 4 μ M to Fc γ RIIIA_158V; and
 - (vi) greater than 10 μ M to Fc γ RIIIA_158F.
11. The antibody of any one of Claims 9-10, wherein the binding affinity is determined by Surface Plasmon Resonance at 25°C.
12. The antibody of any one of Claims 1-11, wherein the antibody does not
- 15 bind C1q.
13. The antibody of Claim 12, wherein binding to C1q is determined by ELISA.
14. The antibody of any one of Claims 1-13, wherein the antibody is an IgG4P.
- 20 15. The antibody of Claim 1 or Claim 2, comprising a heavy chain (HC) and a light chain (LC), wherein the amino acid sequence of the HC is given by SEQ ID NO: 9 and the amino acid sequence of the LC is given by SEQ ID NO: 10.
16. The antibody of Claim 15, wherein Xaa at position 1 of SEQ ID NO: 9 is glutamine and Xaa at position 446 of SEQ ID NO: 9 is glycine.
- 25 17. The antibody of Claim 15, wherein Xaa at position 1 of SEQ ID NO: 9 is pyroglutamic acid and Xaa at position 446 of SEQ ID NO: 9 is glycine.
18. The antibody of Claim 15, wherein Xaa at position 1 of SEQ ID NO: 9 is glutamine and Xaa at position 446 of SEQ ID NO: 9 is absent.
- 30 19. The antibody of Claim 15, wherein Xaa at position 1 of SEQ ID NO: 9 is pyroglutamic acid and Xaa at position 446 of SEQ ID NO: 9 is absent.

20. A CD200R agonist antibody, wherein the antibody does not cause significant cytokine release compared to a wild-type IgG1 antibody having the same CDRs as the CD200R agonist antibody.
- 5 21. The antibody of Claim 20, comprising a heavy chain variable region (HCVR) and a light chain variable region (LCVR), wherein the HCVR comprises a HCDR1, HCDR2, and HCDR3, and the LCVR comprises a LCDR1, LCDR2, and LCDR3, wherein the amino acid sequence of the HCDR1 is given by SEQ ID NO: 1, the amino acid sequence of the HCDR2 is given by SEQ ID NO: 2, and the amino acid sequence of the HCDR3 is given by SEQ ID NO: 3, the amino acid sequence of the LCDR1 is given by SEQ ID NO: 4, the amino acid sequence of the LCDR2 is given by SEQ ID NO: 5, and the amino acid sequence of the LCDR3 is given by SEQ ID NO: 6, and wherein binding of antibody to Fcγ RI, Fcγ RIIA_131H, Fcγ RIIA_131R, Fcγ RIIb, and Fcγ RIIIA_158V, Fcγ RIIIA_158F, or C1q does not cause significant cytokine release compared to a wild-type IgG1 antibody having the same CDRs as the CD200R agonist antibody.
- 10 15 22. The antibody of any one of Claims 20-21, wherein the antibody does not bind Fcγ RIIIA_158F or C1q.
- 20 23. The antibody of any one of Claims 1-22, for use in therapy.
24. The use of the antibody of any one of Claims 1-22 in the manufacture of a medicament for the treatment of a disease, wherein the disease is an autoimmune disease, allergic disease, asthma, atopic dermatitis, or other inflammatory disorders.
- 25 25. A pharmaceutical composition comprising the antibody of any one of Claims 1-22, and one or more pharmaceutically acceptable carriers, diluents, or excipients.
26. A DNA molecule comprising a polynucleotide that encodes the HC whose amino acid sequence is given by SEQ ID NO: 9 or a polynucleotide that encodes the LC whose amino acid sequence is given by SEQ ID NO: 10.
- 30 27. The DNA molecule of Claim 26, in which the sequence of the polynucleotide that encodes the HC is given by SEQ ID NO: 12 or the

sequence of the polynucleotide that encodes the LC is given by SEQ ID NO: 13.

- 5 28. The DNA molecule of Claim 26 comprising 1) a polynucleotide that encodes the HC whose amino acid sequence is given by SEQ ID NO: 9, and 2) a polynucleotide that encodes the LC whose amino acid sequence is given by SEQ ID NO: 10.
- 10 29. The DNA molecule of Claim 28, wherein the sequence of the polynucleotide that encodes the HC is given by SEQ ID NO: 12, and the sequence of the polynucleotide that encodes the LC is given by SEQ ID NO: 13.
- 15 30. A mammalian cell transformed with the DNA molecule of Claim 29, which transformed mammalian cell is capable of expressing an antibody comprising two HCs and two LCs, in which the amino acid sequence of each HC is given by SEQ ID NO: 9, and the amino acid sequence of each LC is given by SEQ ID NO: 10.