

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
5 sequence of the LCDR3 is given by SEQ ID NO: 6.

In a further aspect of the present disclosure, there is provided an antibody disclosed herein, for use in therapy.

In another aspect of the present disclosure, there is provided a use of the antibody disclosed herein, in the manufacture of a medicament for the treatment of a disease,
10 wherein the disease is an autoimmune disease, allergic disease, asthma, atopic dermatitis, or other inflammatory disorders.

In a further aspect of the present disclosure, there is provided a pharmaceutical composition comprising the antibody disclosed herein, and one or more pharmaceutically acceptable carriers, diluents, or excipients.

15 In another aspect of the present disclosure, there is provided 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.

In a further aspect of the present disclosure, there is provided a mammalian cell
20 transformed with the DNA molecule disclosed herein, 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.

25 **Description**

Accordingly, the present invention provides novel anti-human CD200R agonist antibodies. The antibodies of the present invention are particularly advantageous over prior art CD200R agonist antibodies in view of at least the following properties: 1) desirable association and dissociation rates, 2) agonism of human CD200R to achieve an

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 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.
- 25 6. The antibody of Claim 5, wherein Xaa at position 1 of SEQ ID NO: 9 is glutamine and Xaa at position 446 of SEQ ID NO: 9 is glycine.
7. The antibody of Claim 5, 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.
8. The antibody of Claim 5, 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 9. The antibody of Claim 5, 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.
10. The antibody of any one of Claims 1-9, for use in therapy.

11. The use of the antibody of any one of Claims 1-9 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.
- 5 12. A pharmaceutical composition comprising the antibody of any one of Claims 1-9, and one or more pharmaceutically acceptable carriers, diluents, or excipients.
- 10 13. 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.
14. The DNA molecule of Claim 13, 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.
- 15 15. The DNA molecule of Claim 13 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.
- 20 16. The DNA molecule of Claim 15, 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.
- 25 17. A mammalian cell transformed with the DNA molecule of Claim 16, 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.