CLAIMS

1. An antibody which binds to human CD37 comprising:
(a) a variable heavy chain (VH) region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 23, 24, and 25, respectively, and a variable light chain (VL) region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 27, the sequence YAS, and SEQ ID NO: 31, respectively, or
(b) a VH region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 16, 17, and 18, respectively, and a VL region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 20, the sequence KAS, and SEQ ID NO: 21, respectively.

2. The antibody of claim 1, which comprises the VH region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 23, 24, and 25, respectively, and the VL region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 27, the sequence YAS, and SEQ ID NO: 31, respectively.

3. The antibody of claim 1, which comprises the VH region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 16, 17, and 18, respectively, and the VL region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 20, the sequence KAS, and SEQ ID NO: 21, respectively.

4. The antibody of claim 2, which comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 22 and a VL region comprising the amino acid sequence set forth in SEQ ID NO: 29.

5. The antibody of claim **3**, which comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 15 and a VL region comprising the amino acid sequence set forth in SEQ ID NO: 19.

6. The antibody of claim **2**, which comprises a human IgG1 heavy chain constant region.

7. The antibody of claim **3**, which comprises a human IgG1 heavy chain constant region.

8. The antibody of claim **6**, wherein the human IgG1 heavy chain constant region comprises a substitution of glutamic acid at position 430 for glycine, and wherein the amino acid residue is numbered according to the EU Index.

9. The antibody of claim **7**, wherein the human IgG1 heavy chain constant region comprises a substitution of glutamic acid at position 430 for glycine, and wherein the amino acid residue is numbered according to the EU Index.

10. The antibody of claim **2**, which comprises a kappa light chain constant region.

11. The antibody of claim **3**, which comprises a kappa light chain constant region.

12. A bispecific antibody comprising a first binding arm and a second binding arm, wherein the first binding arm comprises a first antigen-binding region and the second binding arm comprises a second antigen-binding region, wherein both the first antigen-binding region and second antigen-binding region bind to human CD37, and wherein

(a) the first antigen-binding region comprises a variable heavy chain (VH) region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 23, 24, and 25, respectively, and a variable light chain (VL) region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 27, the sequence YAS, and SEQ ID NO: 31, respectively, and

(b) the second antigen-binding region comprises a VH region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NOs: 16, 17, and 18, respectively, and a VL region comprising the CDR1, CDR2, and CDR3 sequences set forth in SEQ ID NO: 20, the sequence KAS, and SEQ ID NO: 21.

13. The bispecific antibody of claim **12**, wherein:

(a) the first antigen-binding region comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 22 and a VL region comprising the amino acid sequence set forth in SEQ ID NO: 29, and

(b) the second antigen-binding region comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 15 and a VL region comprising the amino acid sequence set forth in SEQ ID NO: 19.

14. The bispecific antibody of claim **13**, wherein the first binding arm comprises a first human IgG1 heavy chain constant region and the second binding arm comprises a second human IgG1 heavy chain constant region.

15. The bispecific antibody of claim **14**, wherein both the first and second human IgG1 heavy chain constant regions comprise a substitution of glutamic acid at position 430 for glycine, and wherein the amino acid residue is numbered according to the EU Index.

16. The bispecific antibody of claim **14**, wherein the first human IgG1 heavy chain constant region comprises a substitution of phenylalanine at position 405 for leucine, wherein the second human IgG1 heavy chain constant region comprises a substitution of lysine at position 409 for arginine, and wherein the amino acid residues are numbered according to the EU Index.

17. The bispecific antibody of claim **14**, wherein the first human IgG1 heavy chain constant region comprises a substitution of lysine at position 409 for arginine, wherein the second human IgG1 heavy chain constant region comprises a substitution of phenylalanine at position 405 for leucine, and wherein the amino acid residues are numbered according to the EU Index.

18. The bispecific antibody of claim **13**, wherein both the first binding arm and second binding arm comprise a human kappa light chain constant region.

19. A bispecific antibody comprising a first binding arm comprising a first heavy chain and a first light chain and a second binding arm comprising a second heavy chain and a second light chain, wherein both the first binding arm and second binding arm bind to human CD37, and wherein:

(a) the first heavy chain comprises a variable heavy chain (VH) region comprising the amino acid sequence set forth in SEQ ID NO: 22, and the first light chain comprises a variable light chain (VL) region comprising the amino acid sequence set forth in SEQ ID NO: 29, and

(b) the second heavy chain comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 15, and the second light chain comprises a VL region comprising the amino acid sequence set forth in SEQ ID NO: 19,

wherein the first heavy chain and second heavy chain comprise heavy chain constant regions comprising the amino acid sequences set forth in SEQ ID NOs: 59 and 60, respectively, and

wherein both the first light chain and second light chain comprise a light chain constant region comprising the amino acid sequence set forth in SEQ ID NO: 61.

20. A bispecific antibody comprising a first binding arm comprising a first heavy chain and a first light chain and a second binding arm comprising a second heavy chain and a second light chain, wherein both the first binding arm and second binding arm bind to human CD37, and wherein:

(a) the first heavy chain comprises a variable heavy chain (VH) region comprising the amino acid sequence set forth in SEQ ID NO: 22, and the first light chain comprises a variable light chain (VL) region comprising the amino acid sequence set forth in SEQ ID NO: 29, and

(b) the second heavy chain comprises a VH region comprising the amino acid sequence set forth in SEQ ID NO: 15, and the second light chain comprises a VL region comprising the amino acid sequence set forth in SEQ ID NO: 19,

wherein the first heavy chain and second heavy chain comprise heavy chain constant regions comprising the amino acid sequences set forth in SEQ ID NOs: 60 and 59, respectively, and

wherein both the first light chain and second light chain comprise a light chain constant region comprising the amino acid sequence set forth in SEQ ID NO: 61.