WHAT IS CLAIMED IS:

1. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with an antibody or antigen binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment thereof is capable of inducing apoptosis *in vitro* in the absence of a cross-linking agent.

2. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of an antibody or antigen-binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment thereof is capable of inducing apoptosis *in vitro* in the absence of a cross-linking agent.

3. The method of claim 1 or 2, wherein said antibody or antigen-binding fragment thereof is also capable of inducing complement dependent cytotoxicity (CDC).

4. The method of any of claims 1-3, wherien said antibody or antigen-binding fragment thereof is also capable of inducing antibody dependent cell mediated cytotoxicity (ADCC).

5. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with an antibody or antigen binding fragment thereof that specifically binds to the same CD37 epitope as an antibody selected from the group consisting of:

(a) an antibody comprising the polypeptide of SEQ ID NO:55 and the polypeptide of SEQ ID NO:72;
(b) an antibody comprising the polypeptide of SEQ ID NO:56 and the polypeptide of SEQ ID NO:73;
(c) an antibody comprising the polypeptide of SEQ ID NO:57 and the polypeptide of SEQ ID NO:74;
(d) an antibody comprising the polypeptide of SEQ ID NO:58 and the polypeptide of SEQ ID NO:74;
(e) an antibody comprising the polypeptide of SEQ ID NO:59 and the polypeptide of SEQ ID NO:75;
(f) an antibody comprising the polypeptide of SEQ ID NO:60 and the polypeptide of SEQ ID NO:76;
(g) an antibody comprising the polypeptide of SEQ ID NO:61 and the polypeptide of SEQ ID NO:77;
(h) an antibody comprising the polypeptide of SEQ ID NO:62 and the polypeptide of SEQ ID NO:78;
(i) an antibody comprising the polypeptide of SEQ ID NO:63 and the polypeptide of SEQ ID NO:79;
(j) an antibody comprising the polypeptide of SEQ ID NO:64 and the polypeptide of SEQ ID NO:80;
(k) an antibody comprising the polypeptide of SEQ ID NO:65 and the polypeptide of SEQ ID NO:81;
(l) an antibody comprising the polypeptide of SEQ ID NO:66 and the polypeptide of SEQ ID NO:82;
(m) an antibody comprising the polypeptide of SEQ ID NO:67 and the polypeptide of SEQ ID NO:83;
(n) an antibody comprising the polypeptide of SEQ ID NO:68 and the polypeptide of SEQ ID NO:84;
(o) an antibody comprising the polypeptide of SEQ ID NO:69 and the polypeptide of SEQ ID NO:85;

(p) an antibody comprising the polypeptide of SEQ ID NO:70 and the polypeptide of SEQ ID NO:86;
(q) an antibody comprising the polypeptide of SEQ ID NO:71 and the polypeptide of SEQ ID NO:87; and
(r) an antibody comprising the polypeptide of SEQ ID NO:177 and the polypeptide of SEQ ID NO:178.

6. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of an antibody or antigen-binding fragment thereof that specifically binds to the same CD37 epitope as an antibody selected from the group consisting of:

(a) an antibody comprising the polypeptide of SEQ ID NO:55 and the polypeptide of SEQ ID NO:72;
(b) an antibody comprising the polypeptide of SEQ ID NO:56 and the polypeptide of SEQ ID NO:73;
(c) an antibody comprising the polypeptide of SEQ ID NO:57 and the polypeptide of SEQ ID NO:74;
(d) an antibody comprising the polypeptide of SEQ ID NO:58 and the polypeptide of SEQ ID NO:74;
(e) an antibody comprising the polypeptide of SEQ ID NO:59 and the polypeptide of SEQ ID NO:75;
(f) an antibody comprising the polypeptide of SEQ ID NO:60 and the polypeptide of SEQ ID NO:76;
(g) an antibody comprising the polypeptide of SEQ ID NO:61 and the polypeptide of SEQ ID NO:77;
(h) an antibody comprising the polypeptide of SEQ ID NO:62 and the polypeptide of SEQ ID NO:78;
(i) an antibody comprising the polypeptide of SEQ ID NO:63 and the polypeptide of SEQ ID NO:79;
(j) an antibody comprising the polypeptide of SEQ ID NO:64 and the polypeptide of SEQ ID NO:80;
(k) an antibody comprising the polypeptide of SEQ ID NO:65 and the polypeptide of SEQ ID NO:81;
(l) an antibody comprising the polypeptide of SEQ ID NO:66 and the polypeptide of SEQ ID NO:82;
(m) an antibody comprising the polypeptide of SEQ ID NO:67 and the polypeptide of SEQ ID NO:83;
(n) an antibody comprising the polypeptide of SEQ ID NO:68 and the polypeptide of SEQ ID NO:84;
(o) an antibody comprising the polypeptide of SEQ ID NO:69 and the polypeptide of SEQ ID NO:85;
(p) an antibody comprising the polypeptide of SEQ ID NO:70 and the polypeptide of SEQ ID NO:86;
(q) an antibody comprising the polypeptide of SEQ ID NO:71 and the polypeptide of SEQ ID NO:87; and
(r) an antibody comprising the polypeptide of SEQ ID NO:177 and the polypeptide of SEQ ID NO:178.

7. The method of claim 5 or 6, wherein the antibody or antigen-binding fragment thereof competitively inhibits an antibody selected from the group consisting of:

(a) an antibody comprising the polypeptide of SEQ ID NO:55 and the polypeptide of SEQ ID NO:72;
(b) an antibody comprising the polypeptide of SEQ ID NO:56 and the polypeptide of SEQ ID NO:73;
(c) an antibody comprising the polypeptide of SEQ ID NO:57 and the polypeptide of SEQ ID NO:74;
(d) an antibody comprising the polypeptide of SEQ ID NO:58 and the polypeptide of SEQ ID NO:74;
(e) an antibody comprising the polypeptide of SEQ ID NO:59 and the polypeptide of SEQ ID NO:75;
(f) an antibody comprising the polypeptide of SEQ ID NO:60 and the polypeptide of SEQ ID NO:76;

(g) an antibody comprising the polypeptide of SEQ ID NO:61 and the polypeptide of SEQ ID NO:77;
(h) an antibody comprising the polypeptide of SEQ ID NO:62 and the polypeptide of SEQ ID NO:78;
(i) an antibody comprising the polypeptide of SEQ ID NO:63 and the polypeptide of SEQ ID NO:79;
(j) an antibody comprising the polypeptide of SEQ ID NO:64 and the polypeptide of SEQ ID NO:80;
(k) an antibody comprising the polypeptide of SEQ ID NO:65 and the polypeptide of SEQ ID NO:81;
(l) an antibody comprising the polypeptide of SEQ ID NO:66 and the polypeptide of SEQ ID NO:82;
(m) an antibody comprising the polypeptide of SEQ ID NO:67 and the polypeptide of SEQ ID NO:83;
(n) an antibody comprising the polypeptide of SEQ ID NO:68 and the polypeptide of SEQ ID NO:84;
(o) an antibody comprising the polypeptide of SEQ ID NO:69 and the polypeptide of SEQ ID NO:85;
(p) an antibody comprising the polypeptide of SEQ ID NO:70 and the polypeptide of SEQ ID NO:86;
(q) an antibody comprising the polypeptide of SEQ ID NO:71 and the polypeptide of SEQ ID NO:87; and
(r) an antibody comprising the polypeptide of SEQ ID NO:177 and the polypeptide of SEQ ID NO:178.

8. A method for depleting a B-cell comprising contacting a population of cells comprising non-cancerous B-cell with an antibody or antigen-binding fragment thereof produced by hybridoma selected from the group consisting of ATCC Deposit Designation PTA-10664, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10665, deposited with the ATCC on February 18, 2010, ATCC Deposit Deisgnation PTA-10666, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10667 deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10668, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10669, deposited with the ATCC on February 18, 2010, and ATCC Deposit Designation PTA-10670, deposited with the ATCC on February 18, 2010.

9. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of an antibody or antigen-binding fragment thereof produced by hybridoma selected from the group consisting of ATCC Deposit Designation PTA-10664, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10665, deposited with the ATCC on February 18, 2010, ATCC Deposit Deisgnation PTA-10666, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10667 deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10668, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10669, deposited with the ATCC on February 18, 2010, and ATCC Deposit Designation PTA-10670, deposited with the ATCC on February 18, 2010.

10. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with an antibody or antigen-binding fragment thereof that specifically binds to CD37, wherein said antibody comprises polypeptide sequences selected from the group consisting of:

(a) SEQ ID NOs: 4, 5, and 6 and SEQ ID NOs: 28, 29, and 30;
(b) SEQ ID NOs: 7, 8, and 9 and SEQ ID NOs: 31, 32, and 33;
(c) SEQ ID NOs: 10, 11, and 12 and SEQ ID NOs: 34, 35, and 36;
(d) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 38, and 39;
(e) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 40, and 39;
(f) SEQ ID NOs: 16, 17, and 18 and SEQ ID NOs: 41, 42, and 43;
(g) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 45, and 46;
(h) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 47, and 46;
(i) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 49, and 50;
(j) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 51, and 50;
(k) SEQ ID NOs: 25, 26, and 27 and SEQ ID NOs: 52, 53, and 54;
(l) SEQ ID NOs: 171, 172, and 173 and SEQ ID NOs: 174, 175, and 176;
(m) SEQ ID NOs: 171, 181, and 173 and SEQ ID NOs: 174, 175, and 176; and
(n) variants of (a) to (m) comprising 1, 2, 3, or 4 conservative amino acid substitutions.

11. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of an antibody or antigen-binding fragment thereof with an antibody or antigen-binding fragment thereof that specifically binds to CD37, wherein said antibody comprises polypeptide sequences selected from the group consisting of:

(a) SEQ ID NOs: 4, 5, and 6 and SEQ ID NOs: 28, 29, and 30;
(b) SEQ ID NOs: 7, 8, and 9 and SEQ ID NOs: 31, 32, and 33;
(c) SEQ ID NOs: 10, 11, and 12 and SEQ ID NOs: 34, 35, and 36;
(d) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 38, and 39;
(e) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 40, and 39;
(f) SEQ ID NOs: 16, 17, and 18 and SEQ ID NOs: 41, 42, and 43;
(g) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 45, and 46;
(h) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 47, and 46;
(i) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 49, and 50;
(j) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 51, and 50;
(k) SEQ ID NOs: 25, 26, and 27 and SEQ ID NOs: 52, 53, and 54; and

(l) variants of (a) to (k) comprising 1, 2, 3, or 4 conservative amino acid substitutions.

12. The method of claim 10 or 11, wherein the antibody or antigen-binding fragment thereof comprises polypeptide sequences that are at least 90% identical to polypeptide sequences selected from the group consisting of:

(a) SEQ ID NO:55 and SEQ ID NO:72;
(b) SEQ ID NO:56 and SEQ ID NO:73;
(c) SEQ ID NO:57 and SEQ ID NO:74;
(d) SEQ ID NO:58 and SEQ ID NO:74;
(e) SEQ ID NO:59 and SEQ ID NO:75;
(f) SEQ ID NO:60 and SEQ ID NO:76;
(g) SEQ ID NO:61 and SEQ ID NO:77;
(h) SEQ ID NO:62 and SEQ ID NO:78;
(i) SEQ ID NO:63 and SEQ ID NO:79;
(j) SEQ ID NO:64 and SEQ ID NO:80;
(k) SEQ ID NO:65 and SEQ ID NO:81;
(l) SEQ ID NO:66 and SEQ ID NO:82;
(m) SEQ ID NO:67 and SEQ ID NO:83;
(n) SEQ ID NO:68 and SEQ ID NO:84;
(o) SEQ ID NO:69 and SEQ ID NO:85;
(p) SEQ ID NO:70 and SEQ ID NO:86;
(q) SEQ ID NO:71 and SEQ ID NO:87; and
(r) SEQ ID NO:177 and SEQ ID NO:178.

13. The method of claim 12, wherein the polypeptide sequences are at least 95% identical to polypeptide sequences selected from the group consisting of:

(a) SEQ ID NO:55 and SEQ ID NO:72;
(b) SEQ ID NO:56 and SEQ ID NO:73;
(c) SEQ ID NO:57 and SEQ ID NO:74;
(d) SEQ ID NO:58 and SEQ ID NO:74;
(e) SEQ ID NO:59 and SEQ ID NO:75;
(f) SEQ ID NO:60 and SEQ ID NO:76;
(g) SEQ ID NO:61 and SEQ ID NO:77;
(h) SEQ ID NO:62 and SEQ ID NO:78;

(i) SEQ ID NO:63 and SEQ ID NO:79;
(j) SEQ ID NO:64 and SEQ ID NO:80;
(k) SEQ ID NO:65 and SEQ ID NO:81;
(l) SEQ ID NO:66 and SEQ ID NO:82;
(m) SEQ ID NO:67 and SEQ ID NO:83;
(n) SEQ ID NO:68 and SEQ ID NO:84;
(o) SEQ ID NO:69 and SEQ ID NO:85;
p) SEQ ID NO:70 and SEQ ID NO:86;
(q) SEQ ID NO:71 and SEQ ID NO:87; and
(r) SEQ ID NO:177 and SEQ ID NO:178.

14. The method of claim 13, wherein the polypeptide sequences are at least 99% identical to polypeptide sequences selected from the group consisting of:

(a) SEQ ID NO:55 and SEQ ID NO:72;
(b) SEQ ID NO:56 and SEQ ID NO:73;
(c) SEQ ID NO:57 and SEQ ID NO:74;
(d) SEQ ID NO:58 and SEQ ID NO:74;
(e) SEQ ID NO:59 and SEQ ID NO:75;
(f) SEQ ID NO:60 and SEQ ID NO:76;
(g) SEQ ID NO:61 and SEQ ID NO:77;
(h) SEQ ID NO:62 and SEQ ID NO:78;
(i) SEQ ID NO:63 and SEQ ID NO:79;
(j) SEQ ID NO:64 and SEQ ID NO:80;
(k) SEQ ID NO:65 and SEQ ID NO:81;
(l) SEQ ID NO:66 and SEQ ID NO:82;
(m) SEQ ID NO:67 and SEQ ID NO:83;
(n) SEQ ID NO:68 and SEQ ID NO:84;
(o) SEQ ID NO:69 and SEQ ID NO:85;
p) SEQ ID NO:70 and SEQ ID NO:86;
(q) SEQ ID NO:71 and SEQ ID NO:87; and
(r) SEQ ID NO:177 and SEQ ID NO:178.

15. The method of any one of claims 1-14, wherein said antibody or antigen binding fragment thereof is murine, non-human, humanized, chimeric, resurfaced, or human.

16. The method of any one of claims 5-15, wherein said antibody or antibody fragment is capable of inducing apoptosis of a cell expressing CD37 *in vitro* in the absence of cross-linking agents.

17. The method of any one of claims 5-15, wherein said antibody or antigen binding fragment is capable of inducing complement dependent cytotoxicity (CDC).

18. The method of any one of claims 5-15, wherein said antibody is capable of inducing antibody dependent cell mediated cytotoxicity (ADCC).

19. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with a human or humanized antibody or antigen binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment thereof is capable of inducing complement dependent cytotoxicity (CDC).

20. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of a human or humanized antibody or antigen binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment thereof is capable of inducing complement dependent cytotoxicity (CDC).

21. The method of claim 19 or 20, wherein said human or humanized antibody or antigen binding fragment thereof is also capable of inducing inducing apoptosis *in vitro* in the absence of a cross-linking agent.

22. The method of any one of claims 20-21, wherein said human or humanized antibody or antigen binding fragment thereof is also capable of inducing antibody dependent cell mediated cytotoxicity (ADCC).

23. The method of any one of claims 1-22 wherein said antibody binds to human CD37 and macaque CD37.

24. The method of any one of claims 1-22, which is a full length antibody.

25. The method of any one of claims 1-22, which is an antigen-binding fragment.

26. The method of any one of claims 1-22, wherien said antibody or antigen-binding fragment thereof comprises a Fab, Fab', $F(ab')_2$, Fd, single chain Fv or scFv, disulfide linked Fv, V-NAR domain, IgNar, intrabody, IgGΔCH2, minibody, $F(ab')_3$, tetrabody, triabody, diabody, single-domain antibody, DVD-Ig, Fcab, mAb^2, $(scFv)_2$, or scFv-Fc.

27. The method of any one of claims 1-26, wherein the antibody or antigen-binding fragment thereof is linked via a linker (L) to a cytotoxic agent (C) to form an immunoconjugate.

28. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with a composition comprising an immunoconjugate having the formula (A) - (L) - (C), wherein:

(A) is an antibody or antigen binding fragment that specifically binds to CD37;
(L) is a non-cleavable linker; and
(C) is a cytotoxic agent; and
wherein said linker (L) links (A) to (C).

29. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of a composition comprising an immunoconjugate having the formula (A) - (L) - (C), wherein:

(A) is an antibody or antigen binding fragment that specifically binds to CD37;
(L) is a non-cleavable linker; and
(C) is a cytotoxic agent; and
wherein said linker (L) links (A) to (C).

30. A method for depleting a B-cell comprising contacting a population of cells comprising a non-cancerous B-cell with a composition comprising an immunoconjugate having the formula (A) - (L) - (C), wherein:

(A) is an antibody or antigen binding fragment that specifically binds to CD37;
(L) is a linker; and
(C) is a maytansinoid; and
wherein said linker (L) links (A) to (C).

31. A method for treating a patient having an autoimmune or inflammatory disease comprising administering to said patient a therapeutically effective amount of a composition comprising an immunoconjugate having the formula (A) - (L) - (C), wherein:

(A) is an antibody or antigen binding fragment that specifically binds to CD37;
(L) is a linker; and
(C) is a maytansinoid; and
wherein said linker (L) links (A) to (C).

32. The method of claim 30 or 31, wherein the linker is a non-cleavable linker.

33. The method of any one of claims 27-32, wherein the immunoconjugate further comprises a second (C).

34. The method of claim 33, wherein the immunoconjugate further comprises a third (C).

35. The method of claim 34, wherein the immunoconjugate further comprises a fourth (C).

36. The method of one of claims 27-32, wherein the immunoconjugate comprises 2-6 (C).

37. The method of claim 36, wherein the immunoconjugate comprises 3-4 (C).

38. The method of anyone of claims 27-37, wherein said linker is selected from the group consisting of a cleavable linker, a non-cleavable linker, a hydrophilic linker, and a dicarboxylic acid based linker.

39. The method of any one of claims 27-38, wherein said linker is selected from the group consisting of: N-succinimidyl 4-(2-pyridyldithio)pentanoate (SPP); N-succinimidyl 4-(2-pyridyldithio)butanoate (SPDB) or N-succinimidyl 4-(2-pyridyldithio)-2-sulfobutanoate (sulfo-SPDB); N-succinimidyl 4-(maleimidomethyl) cyclohexanecarboxylate (SMCC); N-sulfosuccinimidyl 4-(maleimidomethyl) cyclohexanecarboxylate (sulfoSMCC); N-succinimidyl-4-(iodoacetyl)-aminobenzoate (SIAB); and N-succinimidyl-[(N-maleimidopropionamido)-tetraethyleneglycol] ester (NHS-PEG4-maleimide).

40. The method of claim 39, wherein said linker is N-succinimidyl-[(N-maleimidopropionamido)-tetraethyleneglycol] ester (NHS-PEG4-maleimide).

41. The method of any one of claims 27-29 and 33-40, wherein said cytotoxic agent is selected from the group consisting of a maytansinoid, maytansinoid analog, doxorubicin, a modified doxorubicin, benzodiazepine, taxoid, CC-1065, CC-1065 analog, duocarmycin, duocarmycin analog, calicheamicin, dolastatin, dolastatin analog, aristatin, tomaymycin derivative, and leptomycin derivative or a prodrug of the agent.

42. The method of claim 41, wherein said cytotoxic agent is a maytansinoid.

43. The method of any one of claims 30-32 or 42, wherein said cytotoxic agent is N(2')-deacetyl-N(2')-(3-mercapto-1-oxopropyl)-maytansine (DM1) or N(2')-deacetyl-N2-(4-mercapto-4-methyl-1-oxopentyl)-maytansine (DM4).

44. The method of any one of claims 27-43, wherein the composition comprising an immunoconjugate comprises multiple cytotoxic agents (C) with an average of about 3 to about 4 (C) per (A).

45. The method of claim 44, wherein the immunoconjugates have an average of about 3.5 ± 0.5 (C) per (A).

46. The method of claim 45, wherein the immunoconjugates have an average of about 3.5 (C) per (A).

47. The method of any one of 1-46, wherein said antibody or antigen-binding fragment is capable of depleting B-cells.

48. The method of any one of claims 1-47, wherein said antibody or antigen-binding fragment is capable of inhibiting T-cell responses.

49. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-48, wherein, the population of cells comprises a T-cell.

50. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-49, wherein the population of cells comprises peripheral blood mononuclear cells.

51. The method of claim 50, wherein the peripheral blood mononuclear cells were obtained from a human.

52. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-49, wherein the population of cells is in whole blood.

53. The method of claim 52, wherein the whole blood was obtained from a human.

54. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-49, wherein the population of cells is in an organism.

55. The method of claim 54, wherein the population of cells is in a patient having an autoimmune or inflammatory disease.

56. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-55, wherein the B-cell is an autoreactive B-cell.

57. The method of any one of claims 1, 3-5, 7, 8, 10, 12-19, 21-28, 30, or 32-56, wherein at least about 30% of B-cells in the population of cells are depleted.

58. The method of any one of claims 49-57, wherein less than about 5% of T-cells are depleted.

59. The method of any one of claims 2-4, 6, 7, 9, 11-18, 20-27, 29, or 31-48, further comprising administering a second therapeutic agent.

60. The method of claim 59, wherein the second therapeutic is selected from the group consisting of methotrexate, an anti-CD20 therapeutic, an anti-IL-6 receptor therapeutic, an anti-IL-12/23p40 therapeutic, a chemotherapeutic, an immunosuppressant, an anti-Interferon beta-1a therapeutic, glatiramer acetate, an anti-α4-integrin therapeutic, fingolimod, an anti-BLyS therapeutic, CTLA-Fc, or an anti-TNF therapeutic.

61. The method of claim 59, wherein the second therapeutic is an antibody directed against an antigen selected from a group consisting of CD3, CD14, CD19, CD20, CD22, CD25, CD28, CD30, CD33, CD36, CD38, CD40, CD44, CD52, CD55, CD59, CD56, CD70, CD79, CD80, CD103, CD134, CD137, CD138, and CD152.

62. The method of claim 59, wherein the second therapeutic is an antibody directed against an antigen selected from the group consisting of IL-2, IL-6, IL-12, IL-23, IL-12/23 p40, IL-17, IFNγ, TNFα, IFNα, IL-15, IL-21, IL-1a, IL-1b, IL-18, IL-8, IL-4, GM-CSF, IL-3, and IL-5.

63. The method of any one of 2-4, 6, 7, 9, 11-18, 20-28, 30, 32-47, or 58-62, wherein said autoimmune or inflammatory disease is selected from the group consisting of rheumatoid arthritis, multiple sclerosis, type I diabetes mellitus, idiopathic inflammatory myopathy, systemic lupus erythematosus (SLE), myasthenia gravis, Grave's disease, dermatomyositis, polymyositis, Crohn's diasease, ulcerative colitis, gastritis, Hashimoto's thyroiditis, asthma, psoriasis, psoriatic arthritis, dertmatitis, systemic sclerodema and sclerosis, inflammatory bowel disease (IBD), respiratory distress syndrome, meningitis, encephalitis, uveitis, glmerulonephritis, eczema, atherosclerosis, leukocyte adhesion deficiency, Raynaud's syndrome, Sjögen's syndrome, Reiter's disease, Bcheet's diasease, immune complex nephritis, IgA enphropathy, IgM polyneuropathies, immune-mediated thrombocytopenias, acute idiopathic thrombocytopenic purpura, chronic idiopathic thembocytopenic purpura, hemolytic anemia, myasthenia gravis, lupus nephritis, atopic dermatitis, pemphigus vulgaris, opsoclonus-myoclonus syndrome, pure red cell aplasia, mixed cryoglobulinermia, ankylosing spondylitis, hepatitis C-associated cryoglobulinemic vasculitis, chronic focal encephalitis, bullous pemphigoid, hemophilia A, membranoproliferative glomerulonephritis, adult and juvenile dermatomyositis, adult polymyositis, chronic urticaria, primary biliary cirrhosis, neuromyelitis optica, Graves' dysthyroid disease, bullous pemphigoid, membranoproliferative glomerulonephritis, Churg-Strauss syndrome, juvenile onset diabetes,

hemolytic anemia, atopic dermatitis, systemic sclerosis, Sjögen's syndrome and glomerulonephritis, dermatomyositis, ANCA, aplastic anemia, autoimmune hemolytic anemia (AIHA), factor VIII deficiency, hemophilia A, autoimmune neutropenia, Castleman's syndrome, Goodpasture's syndrome, solid organ transplant rejection, graft versus host disease (GVHD), autoimmune hepatitis, lymphoid interstitial pneumonitis, HIV, bronchiolitis obliterans (non-transplant), Guillain-Barre Syndrome, large vessel vasculitis, giant cell (Takayasu's) arteritis, medium vessel vasculitis, Kawasaki's Disease, polyarteritis nodosa. Wegener's granulomatosis, microscopic polyangiitis (MPA), Omenn's syndrome, chronic renal failure, acute infectious mononucleosis, HIV and herpes virus associated diseases.

64. An antibody or antigen binding fragment thereof that specifically binds to the same CD37 epitope as an antibody comprising the polypeptide of SEQ ID NO:177 and the polypeptide of SEQ ID NO:178.

65. An antibody or antigen binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment comprises the sequences of SEQ ID NOs: 171, 172 or 181, and 173 and SEQ ID NOs: 174, 175, and 176.

66. The antibody or antigen binding fragment of claim 64 or 65, wherein said antibody or fragment comprises polypeptide sequences at least 90%, at least 95%, or at least 99% identical to the sequences of SEQ ID NO:177 and SEQ ID NO:178.

67. An immunoconjugate comprising the antibody or antigen binding fragment of any one of claims 64-66, a linker, and a cytotoxic agent.

68. A method for depleting a B-cell comprising contacting a population of cells comprising a B-cell with the antibody or antigen-binding fragment of any one of claims 64-66 or the immunoconjugate of claim 67.

WHAT IS CLAIMED IS:

1. A humanized antibody or antigen-binding fragment thereof that specifically binds to CD37 for use in the treatment of an autoimmune or inflammatory disease wherein said humanized antibody or fragment thereof is capable of inducing apoptosis *in vitro* in the absence of a cross-linking agent.

2. A humanized antibody or antigen-binding fragment thereof that specifically binds to CD37 for use in a method for depleting non-cancerous B-cells wherein said humanized antibody or fragment thereof is capable of inducing apoptosis *in vitro* in the absence of a cross-linking agent.

3. The humanized antibody or antigen-binding fragment thereof of claim 1 or 2, wherein said antibody or fragment retains the ability of at least its chimeric or murine parent antibody to induce apoptosis of a cell expressing CD37 *in vitro* in the absence of cross-linking agents.

4. The humanized antibody or antigen-binding fragment thereof of any one of claims 1-3, wherein the antibody is a resurfaced antibody.

5. An antibody or antigen-binding fragment thereof that specifically binds to human CD37 and macaque CD37 for use in the treatment of an autoimmune or inflammatory disease.

6. An antibody or antigen-binding fragment thereof that specifically binds to CD37 for use in the treatment of an autoimmune or inflammatory disease, wherein the antibody or fragment binds to the same CD37 epitope as an antibody selected from the group consisting of:

(a) an antibody comprising the polypeptide of SEQ ID NO:57 and the polypeptide of SEQ ID NO:74;

(b) an antibody comprising the polypeptide of SEQ ID NO:63 and the polypeptide of SEQ ID NO:79;

(c) an antibody comprising the polypeptide of SEQ ID NO:65 and the polypeptide of SEQ ID NO:81;

(d) an antibody comprising the polypeptide of SEQ ID NO:67 and the polypeptide of SEQ ID NO:83;

(e) an antibody comprising the polypeptide of SEQ ID NO:69 and the polypeptide of SEQ ID NO:85; and

(f) an antibody comprising the polypeptide of SEQ ID NO:71 and the polypeptide of SEQ ID NO:87.

7. An antibody or antigen-binding fragment thereof that specifically binds to CD37 for use in the treatment of an autoimmune or inflammatory disease wherein the antibody or fragment comprises the polypeptide sequences of:

(a) SEQ ID NOs: 4, 5, and 6 and SEQ ID NOs: 28, 29, and 30;
(b) SEQ ID NOs: 7, 8, and 9 and SEQ ID NOs: 31, 32, and 33;
(c) SEQ ID NOs: 10, 11, and 12 and SEQ ID NOs: 34, 35, and 36;
(d) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 38, and 39;
(e) SEQ ID NOs: 13, 14, and 15 and SEQ ID NOs: 37, 40, and 39;
(f) SEQ ID NOs: 16, 17, and 18 and SEQ ID NOs: 41, 42, and 43;
(g) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 45, and 46;
(h) SEQ ID NOs: 19, 20, and 21 and SEQ ID NOs: 44, 47, and 46;
(i) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 49, and 50;
(j) SEQ ID NOs: 22, 23, and 24 and SEQ ID NOs: 48, 51, and 50;
(k) SEQ ID NOs: 25, 26, and 27 and SEQ ID NOs: 52, 53, and 54;
(l) SEQ ID NOs: 171, 172, and 173 and SEQ ID NOs: 174, 175, and 176; or
(m) SEQ ID NOs: 171, 181, and 173 and SEQ ID NOs: 174, 175, and 176.

8. The antibody or antigen-binding fragment thereof of claim 6, wherein the antibody comprises the polypeptide sequences of:

(a) SEQ ID NO:57 and SEQ ID NO:74;
(b) SEQ ID NO:58 and SEQ ID NO:74;
(c) SEQ ID NO:63 and SEQ ID NO:79;
(d) SEQ ID NO:65 and SEQ ID NO:81;
(e) SEQ ID NO:67 and SEQ ID NO:83;
(f) SEQ ID NO:69 and SEQ ID NO:85; or

(g) SEQ ID NO:71 and SEQ ID NO:87.

9. An antibody or antigen-binding fragment thereof produced by a hybridoma selected from the group consisting of ATCC Deposit Designation PTA-10664, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10665, deposited with the ATCC on February 18, 2010, ATCC Deposit Deisgnation PTA-10666, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10667 deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10668, deposited with the ATCC on February 18, 2010, ATCC Deposit Designation PTA-10669, deposited with the ATCC on February 18, 2010, and ATCC Deposit Designation PTA-10670, deposited with the ATCC on February 18, 2010 for use in the treatment of an autoimmune or inflammatory disease.

10. The antibody or antigen-binding fragment thereof of any one of claims 1-9, wherein said antibody or antigen-binding fragment is capable of inducing antibody dependent cell mediated cytotoxicity (ADCC).

11. An antibody or antigen-binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment binds to the same CD37 epitope as an antibody comprising the polypeptide of SEQ ID NO:177 and the polypeptide of SEQ ID NO:178.

12. An antibody or antigen-binding fragment thereof that specifically binds to CD37, wherein said antibody or fragment comprises the sequences of SEQ ID NOs: 171, 172 or 181, and 173 and SEQ ID NOs: 174, 175, and 176.

13. The antibody or antigen-binding fragment of claim 12, wherein said antibody or fragment comprises the polypeptide sequences of SEQ ID NO:177 and SEQ ID NO:178.

14. The antibody or antigen-binding fragment thereof of any one of claims 1-13, wherein the antibody or antigen-binding fragment thereof is linked via a linker (L) to a cytotoxic agent (C) to form an immunoconjugate.

15. The antibody or antigen-binding fragment thereof of claim 14, wherein the immunoconjugate comprises 2-6 (C).

16. The antibody or antigen-binding fragment thereof of claim 14 or 15, wherein said linker is a cleavable linker, a non-cleavable linker, a hydrophilic linker, or a dicarboxylic acid based linker.

17. The antibody or antigen-binding fragment thereof of claim 14 or 15, wherein said linker is N-succinimidyl 4-(2-pyridyldithio)pentanoate (SPP); N-succinimidyl 4-(2-pyridyldithio)butanoate (SPDB) or N-succinimidyl 4-(2-pyridyldithio)-2-sulfobutanoate (sulfo-SPDB); N-succinimidyl 4-(maleimidomethyl) cyclohexanecarboxylate (SMCC); N-sulfosuccinimidyl 4-(maleimidomethyl) cyclohexanecarboxylate (sulfoSMCC); N-succinimidyl-4-(iodoacetyl)-aminobenzoate (SIAB); or N-succinimidyl-[(N-maleimidopropionamido)-tetraethyleneglycol] ester (NHS-PEG4-maleimide).

18. The antibody or antigen-binding fragment thereof of any one of claims 14-17, wherein said cytotoxic agent is a maytansinoid, maytansinoid analog, doxorubicin, a modified doxorubicin, benzodiazepine, taxoid, CC-1065, CC-1065 analog, duocarmycin, duocarmycin analog, calicheamicin, dolastatin, dolastatin analog, aristatin, tomaymycin derivative, a leptomycin derivative, or a prodrug of the agent.

19. The antibody or antigen-binding fragment thereof of claim 18, wherein said cytotoxic agent is a maytansinoid.

20. The antibody or antigen-binding fragment thereof of claim 19, wherein said cytotoxic agent is, N(2')-deacetyl-N(2')-(3-mercapto-1-oxopropyl)-maytansine (DM1) or N(2')-deacetyl-N(2')-(4-mercapto-4-methyl-1-oxopentyl)-maytansine (DM4).

21. The antibody or antigen-binding fragment of any one of claims 14-20, wherein the antibody or antigen-binding fragment comprises the polypeptide of SEQ ID NO:57 and the polypeptide of SEQ ID NO:74.

22. The antibody or antigen-binding fragment of claim 21, wherein (L) is SMCC.

23. The antibody or antigen-binding fragment of claim 21 or 22, wherein (C) is DM1 or DM4.

24. The antibody or antigen-binding fragment of claim 23, wherein (C) is DM1.

25. The antibody or antigen-binding fragment of any one of claims 14-20, wherein the antibody or antigen-binding fragment comprises the polypeptide of SEQ ID NO:65 and the polypeptide of SEQ ID NO:81.

26. The antibody or antigen-binding fragment of claim 25, wherein (L) is SMCC.

27. The antibody or antigen-binding fragment of claim 25 or 26, wherein (C) is DM1 or DM4.

28. The antibody or antigen-binding fragment of claim 27, wherein (C) is DM1.

29. The antibody or antigen-binding fragment thereof of any one of claims 1 and 3-28, wherein said autoimmune or inflammatory disease is rheumatoid arthritis, multiple sclerosis, type I diabetes mellitus, idiopathic inflammatory myopathy, systemic lupus erythematosus (SLE), myasthenia gravis, Grave's disease, dermatomyositis, polymyositis, Crohn's diasease, ulcerative colitis, gastritis, Hashimoto's thyroiditis, asthma, psoriasis, psoriatic arthritis, dertmatitis, systemic sclerodema and sclerosis, inflammatory bowel disease (IBD), respiratory distress syndrome, meningitis, encephalitis, uveitis, glmerulonephritis, eczema, atherosclerosis, leukocyte adhesion deficiency, Raynaud's syndrome, Sjögen's syndrome, Reiter's disease, Beheet's diasease, immune complex nephritis, IgA enphropathy, IgM polyneuropathies, immune-mediated thrombocytopenias, acute idiopathic thrombocytopenic purpura, chronic idiopathic thembocytopenic purpura, hemolytic anemia, myasthenia gravis, lupus nephritis, atopic dermatitis, pemphigus vulgaris, opsoclonus-myoclonus syndrome, pure red cell aplasia, mixed cryoglobulinermia, ankylosing spondylitis, hepatitis C-associated cryoglobulinemic vasculitis, chronic focal encephalitis, bullous pemphigoid, hemophilia A, membranoproliferative glomerulonephritis, adult and juvenile dermatomyositis, adult polymyositis, chronic urticaria, primary biliary cirrhosis, neuromyelitis optica, Graves' dysthyroid disease, bullous pemphigoid, membranoproliferative glomerulonephritis, Churg-Strauss syndrome, juvenile onset diabetes, hemolytic anemia, atopic dermatitis, systemic sclerosis, Sjögen's syndrome and glomerulonephritis, dermatomyositis, ANCA, aplastic anemia, autoimmune hemolytic anemia (AIHA), factor VIII deficiency, hemophilia A, autoimmune neutropenia, Castleman's syndrome, Goodpasture's syndrome, solid organ transplant rejection, graft versus host disease (GVHD), autoimmune hepatitis,

lymphoid interstitial pneumonitis, HIV, bronchiolitis obliterans (non-transplant), Guillain-Barre Syndrome, large vessel vasculitis, giant cell (Takayasu's) arteritis, medium vessel vasculitis, Kawasaki's Disease, polyarteritis nodosa. Wegener's granulomatosis, microscopic polyangiitis (MPA), Omenn's syndrome, chronic renal failure, acute infectious mononucleosis, HIV, or herpes virus associated diseases.

30. The antibody or antigen-binding fragment thereof of claim 29, wherein said autoimmune or inflammatory disease is multiple sclerosis.

31. The antibody or antigen-binding fragment thereof of claim 29, wherein said autoimmune or inflammatory disease is diabetes mellitus.

32. The antibody or antigen-binding fragment thereof of claim 29, wherein said autoimmune or inflammatory disease is rheumatoid arthritis.