

CLAIMS

1. A humanized antibody comprising a heavy chain variable region/light chain variable region pair selected from the group
5 consisting of VH11/VL15, VH12/VL15, VH13/VL15, VH14/VL15, VH14_1/VL15, VH14_1C/VL15, VH14_1D/VL15, VH14_1E/VL15, and VH14_1G/VL15, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL") protein.
- 10 2. A composition comprising an antibody of claim 1 and a pharmaceutically acceptable carrier or diluent.
3. A humanized antibody comprising a heavy chain variable region/light chain variable region pair, comprising:
15 heavy chain complementary determining regions consisting of SEQ ID NO: 5, SEQ ID NO: 6, and SEQ ID NO: 7;
light chain complementary determining regions consisting of SEQ ID NO: 8, SEQ ID NO: 9, and SEQ ID NO: 10; and
framework regions having at least 90% sequence similarity
20 to the framework regions of a heavy chain variable region/light chain variable region pair selected from the group consisting of VH11/VL15, VH12/VL15, VH13/VL15, VH14/VL15, VH14_1/VL15, VH14_1C/VL15, VH14_1D/VL15, VH14_1E/VL15, and VH14_1G/VL15, wherein the antibody binds to human "A proliferation-inducing
25 ligand" ("APRIL") protein.
4. An antibody according to claim 3, wherein at least 90% sequence similarity is at least 90% sequence identity.
- 30 5. An antibody according to claim 3, wherein at least 90% sequence similarity is at least 95% sequence similarity.
6. An antibody according to claim 5, wherein at least 95% sequence

similarity is at least 95% sequence identity.

7. An antibody according to claim 3, wherein the amino acid at position 72 of the heavy chain variable region is S.

5

8. An antibody according to claim 3, wherein the amino acid at position 67 of the heavy chain variable region is K and the amino acid at position 68 of the heavy chain variable region is A.

10 9. An antibody according to claim 4, wherein the amino acid at position 72 of the heavy chain variable region is S.

10. An antibody according to claim 4, wherein the amino acid at position 67 of the heavy chain variable region is K and the amino acid at position 68 of the heavy chain variable region is A.

15

11. An antibody according to claim 5, wherein the amino acid at position 72 of the heavy chain variable region is S.

20 12. An antibody according to claim 5, wherein the amino acid at position 67 of the heavy chain variable region is K and the amino acid at position 68 of the heavy chain variable region is A.

25 13. An antibody according to claim 6, wherein the amino acid at position 72 of the heavy chain variable region is S.

14. An antibody according to claim 6, wherein the amino acid at position 67 of the heavy chain variable region is K and the amino acid at position 68 of the heavy chain variable region is A.

30

15. A composition comprising an antibody of claim 3 and a pharmaceutically acceptable carrier or diluent.

5 16. A composition comprising an antibody according to claim 4 and a pharmaceutically acceptable carrier or diluent.

17. A composition comprising an antibody according to claim 5 and a pharmaceutically acceptable carrier or diluent.

10

18. A composition comprising an antibody according to claim 6 and a pharmaceutically acceptable carrier or diluent.

15 19. A composition comprising an antibody according to claim 7 and a pharmaceutically acceptable carrier or diluent.

20. A composition comprising an antibody according to claim 8 and a pharmaceutically acceptable carrier or diluent.

20 21. A composition comprising an antibody according to claim 9 and a pharmaceutically acceptable carrier or diluent.

22. A composition comprising an antibody according to claim 10 and a pharmaceutically acceptable carrier or diluent.

25

23. A composition comprising an antibody according to claim 11 and a pharmaceutically acceptable carrier or diluent.

30 24. A composition comprising an antibody according to claim 12 and a pharmaceutically acceptable carrier or diluent.

25. A composition comprising an antibody according to claim 13 and a pharmaceutically acceptable carrier or diluent.

26. A composition comprising an antibody according to claim 14 and a pharmaceutically acceptable carrier or diluent.

- 5 27. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH11/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").
- 10 28. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH12/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").
- 15 29. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH13/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").
- 20 30. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").
- 25 31. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14_1/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").
- 30 32. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14_1C/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").

33. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14_1D/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").

34. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14_1E/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").

35. A humanized antibody comprising a heavy chain variable region/light chain variable region pair of VH14_1G/VL15 according to claim 1, wherein the antibody binds to human "A proliferation-inducing ligand" ("APRIL").

36. A composition comprising an antibody of claim 27 and a pharmaceutically acceptable carrier or diluent.

37. A composition comprising an antibody of claim 28 and a pharmaceutically acceptable carrier or diluent.

38. A composition comprising an antibody of claim 29 and a pharmaceutically acceptable carrier or diluent.

39. A composition comprising an antibody of claim 30 and a pharmaceutically acceptable carrier or diluent.

40. A composition comprising an antibody of claim 31 and a pharmaceutically acceptable carrier or diluent.

41. A composition comprising an antibody of claim 32 and a pharmaceutically acceptable carrier or diluent.

42. A composition comprising an antibody of claim 33 and a pharmaceutically acceptable carrier or diluent.

5 43. A composition comprising an antibody of claim 34 and a pharmaceutically acceptable carrier or diluent.

44. A composition comprising an antibody of claim 35 and a pharmaceutically acceptable carrier or diluent.