CLAIMS

1. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof competes for binding to CD1d with at least one antibody selected from the group consisting of 401.11 and 402.8.

2. An isolated antibody or antigen binding portion thereof as claimed in claim 1 wherein the isolated antibody or antigen binding portion thereof competes for binding to CD1d with antibody 401.11.158.

3. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof binds to the same epitope of CD1d as that bound by at least one antibody selected from the group consisting of 401.11 and 402.8.

4. An isolated antibody or antigen binding portion thereof as claimed in claim 3 in which the epitope comprises residues 141 to 143 of SEQ ID NO: 116.

5. An isolated antibody or antigen binding portion thereof as claimed in claim 3 or 4 in which the epitope comprises residues 87 to 93 and 141 to 143 of SEQ ID NO: 116.

6. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain having a sequence selected from the group consisting of SEQ ID NOs 1, 3, 5, 7, 8, 9, 24, 25, 26, 30, 33, 36, 40, 41, 42, 43, 44 and 45 and sequences at least 95% identical thereto.

7. An isolated antibody or antigen binding portion thereof as claimed in claim 6 in which the sequence of the VH domain is SEQ ID NO: 148 or SEQ ID NO: 150.

8. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a VL domain having a sequence selected from the group consisting of SEQ ID NOs 2, 4, 6, 46, 49 and 62 and sequences at least 95% identical thereto.

9. An isolated antibody or antigen binding portion thereof as claimed in claim 8 in which the sequence of the VL domain is SEQ ID NO: 149 or SEQ ID NO: 4.

10. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is DYAMH (SEQ ID NO: 124) or GYYWS (SEQ ID NO: 125).

11. An isolated antibody or antigen binding portion thereof as claimed in claim 10 in which the sequence of CDR3 is DMCSSSGCPDGYFDS (SEQ ID NO: 126), DLCSSGGCPEGYFDS (SEQ ID NO: 152), DMCSSGGCPDGYFDS (SEQ ID NO: 153), DMCSSGGCPEGYFDS (SEQ ID NO: 154), GEIYDFWNSYMDV (SEQ ID NO: 127), GEIYDFWKSYMDV (SEQ ID NO: 128), GEIYDFYKSYLDV (SEQ ID NO: 155), GEIYDFYKSYMDV (SEQ ID NO: 156), GEIYDFWKSYLDV (SEQ ID NO: 129) or GEIYDFYNSYMDV (SEQ ID NO: 130).

12. An isolated antibody or antigen binding portion thereof as claimed in claim 10 or 11 in which the sequence of CDR2 is TIIWNSAIIGYADSVKG (SEQ ID NO: 131), EINHSGSTNYNPSLKS (SEQ ID NO: 132), EINPSGSTNYNPSLKS (SEQ ID NO: 133) or EINHAGSTNYNPSLKS (SEQ ID NO: 134).

13. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is GFTFDDY (SEQ ID NO: 135) or GGSFSGY (SEQ ID NO: 136).

14. An isolated antibody or antigen binding portion thereof as claimed in claim 13 in which the sequence of CDR3 is DMCSSSGCPDGYFDS (SEQ ID NO: 126), DLCSSGGCPEGYFDS (SEQ ID NO: 152), DMCSSGGCPDGYFDS (SEQ ID NO: 153), DMCSSGGCPEGYFDS (SEQ ID NO: 154), GEIYDFWNSYMDV (SEQ ID NO: 127), GEIYDFWKSYMDV (SEQ ID NO: 128), GEIYDFYKSYLDV (SEQ ID NO: 155), GEIYDFYKSYMDV

(SEQ ID NO: 156), GEIYDFWKSYLDV (SEQ ID NO: 129) or GEIYDFYNSYMDV (SEQ ID NO: 130).

15. An isolated antibody or antigen binding portion thereof as claimed in claim 13 or 14 in which the sequence of CDR2 is IWNSAI (SEQ ID NO: 137), NHSGS (SEQ ID NO: 138), NPSGS (SEQ ID NO: 139) or NHAGS (SEQ ID NO: 140).

16. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_L domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is RASQHISSWLA (SEQ ID NO: 141) or ASSSGAVSSGNFPN (SEQ ID NO: 142).

17. An isolated antibody or antigen binding portion thereof as claimed in claim 16 in which the sequence of CDR3 is QQANRFPLT (SEQ ID NO: 143) or LLYFGDTQLGV (SEQ ID NO: 144).

18. An isolated antibody or antigen binding portion thereof as claimed in claim 16 or 17 in which the sequence of CDR2 is AASSLQS (SEQ ID NO: 145) or SASNKHS (SEQ ID NO: 146).

19. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 6 to 18 in which the isolated antibody or antigen binding portion thereof comprises a VH and VL sequence pair selected from the group consisting SEQ ID NO: 1 and SEQ ID NO: 2, SEQ ID NO: 23 and SEQ ID NO: 46, SEQ ID NO: 24 and SEQ ID NO: 47, SEQ ID NO: 5 and SEQ ID NO: 6, SEQ ID NO: 25 and SEQ ID NO: 48, SEQ ID NO: 26 and SEQ ID NO: 49, SEQ ID NO: 27 and SEQ ID NO: 50, SEQ ID NO: 28 and SEQ ID NO: 51, SEQ ID NO: 29 and SEQ ID NO: 52, SEQ ID NO: 30 and SEQ ID NO: 53, SEQ ID NO: 31 and SEQ ID NO: 54, SEQ ID NO: 32 and SEQ ID NO: 55, SEQ ID NO: 33 and SEQ ID NO: 56, SEQ ID NO: 34 and SEQ ID NO: 57, SEQ ID NO: 35 and SEQ ID NO: 58, SEQ ID NO: 36 and SEQ ID NO: 59, SEQ ID NO: 37 and SEQ ID NO: 60, SEQ ID NO: 38 and SEQ ID NO: 61, SEQ ID NO: 40 and SEQ ID NO: 62, SEQ ID NO: 41 and SEQ ID NO: 63, SEQ ID NO: 42 and SEQ ID NO: 64, SEQ ID NO: 3 and SEQ ID NO: 4, SEQ ID NO: 7 and SEQ ID NO: 4, SEQ ID NO: 8 and SEQ ID NO: 4, SEQ ID NO: 9 and SEQ ID NO: 4, SEQ ID NO: 43 and SEQ ID NO: 65,

SEQ ID NO: 44 and SEQ ID NO: 66, and SEQ ID NO: 45 and SEQ ID NO: 67.

20. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 19 wherein the isolated antibody or antigen binding portion thereof binds to CD1d with an EC50 of from 0.5ng/ml to 20ng/ml as measured using a cell based potency assay.

21. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 20 wherein the isolated antibody or antigen binding portion thereof comprises a human kappa chain constant region.

22. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 21 wherein the isolated antibody or antigen binding portion thereof comprises a human lambda chain constant region.

23. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 22 wherein the isolated antibody or antigen binding portion thereof comprises an IgG1 or IgG4 constant region.

24. An isolated antibody or antigen binding portion thereof as claimed in claim 23 wherein the isolated antibody or antigen binding portion thereof comprises an IgG4 constant region which includes an S228P mutation.

25. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 24 wherein the isolated antibody or antigen binding portion thereof is an antibody.

26. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 24 wherein the isolated antibody or antigen binding portion thereof is an Fab, F(ab)2, scFv or a domain antibody.

27. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 26 wherein the antibody or antigen binding portion thereof is modified to modulate a functional characteristic selected from the group consisting of antibody-dependent cellular cytotoxicity, complement-dependent cytotoxicity, serum half-life, biodistribution and binding to Fc receptors.

28. A composition comprising an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 26 and a pharmaceutically acceptable carrier.

29. An isolated DNA molecule which encodes the isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 26.

30. An isolated DNA molecule as claimed in claim 29 wherein the sequence of the DNA molecule is selected from the group consisting of SEQ ID NOs. 10 to 18 and 68 to 115, or a sequence at least 95% identical thereto or a sequence which hybridises thereto under moderate to high stringency conditions.

31. A transformed cell which produces an antibody or antigen binding portion thereof as claimed in any one of claims 1 to 26.

32. A transformed cell as claimed in claim 31 in which the cell is transformed with a DNA molecule as claimed in claim 29 or 30.

33. A method of treating a condition involvingNKT cell effector function in a human subject comprising administering to the subject an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 27 or a composition as claimed in claim 28.

34. A method as claimed in claim 33 in which the condition is selected from the group consisting of psoriasis, ulcerative colitis, primary biliary cirrhosis, atherosclerosis, non-alcoholic steatohepatitis, autoimmune hepatitis, ischaemia-reperfusion injury, pulmonary inflammation or dysfunction associated with sickle cell disease, and asthma.

35. The use of an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 27 in the preparation of a medicament for the treatment of a condition involving NKT cell effector function.

36. A method of detecting the presence of human or cynomolgus CD1d in a sample the method comprising contacting a sample suspected to contain CD1d with the isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 27 under conditions which allows the binding of the antibody or antigen binding portion thereof to CD1d to form a complex and detecting the presence the complex in the sample.

37. The method according to claim 36, wherein the CD1d in a sample is cell membrane bound CD1d.

38. The isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 27 for use in the treatment of a condition involving NKT cell effector function.

39. A method of detecting the presence of human CD1d-positive cells in a cell sample the method comprising contacting a population of cells with an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 27 to allow the binding of the antibody or antigen binding portion thereof to CD1d-positive cells to form a complex and detecting the presence of the antibody or antigen binding portion thereof -cell complex.

40. A method as claimed in claim 39 wherein the cell sample is a peripheral blood sample or a cell line sample.

41. A method of selecting a CD1d-binding protein which binds specifically to human CD1d and competes for binding on CD1d with at least one antibody selected from the group consisting of 401.11, 402.8 and 401.11.158 from a plurality of CD1d-binding proteins, the method comprising:

contacting the plurality of CD1d-binding proteins to a human CD1d mutein in which the amino acids located at positions 87 to 93 and 141to 143 of SEQ ID NO: 116 have been substituted with corresponding murine amino acids at these positions, under conditions sufficient to allow binding of CD1d-binding proteins to the mutein to form a CD1d-binding protein-human CD1d mutein complex and a depleted plurality of CD1d-binding proteins which do not bind the human CD1d mutein, and collecting CD1d-binding proteins which do not bind to the human CD1d mutein from the depleted plurality of CD1d-binding proteins, wherein the collected CD1d-binding proteins bind specifically to human CD1d and compete for binding on CD1d with at least one antibody selected from the group consisting of 401.11, 402.8 and 401.11.158.

42. A method of selecting a CD1d-binding protein which binds specifically to human CD1d from a plurality of CD1d-binding proteins, the method comprising:

contacting the plurality of CD1d-binding proteins to hCD1dmu (SEQ ID NO: 119) in which the amino acids located at positions 87 to 93 and 141 to 143 of human CD1d (SEQ ID NO 116) have been replaced with the corresponding murine sequence at this location, under conditions sufficient to allow binding of CD1d-binding proteins to the hCD1dmu to form a CD1d-binding protein-hCD1dmu complex and a depleted plurality of CD1d binding proteins which do not bind hCD1dmu and collecting CD1d-binding proteins which do not bind to the hCD1dmu from the depleted plurality of CD1d-binding proteins, wherein the collected CD1d binding proteins bind specifically to human CD1d (SEQ ID NO: 116) or mCD1dhu (SEQ ID NO: 118).

CLAIMS

1. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof binds to an epitope of CD1d which comprises residues 87 to 93 and 141 to 143 of SEQ ID NO: 116.

2. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain having a sequence selected from the group consisting of SEQ ID NOs 1, 3, 5, 7, 8, 9, 24, 25, 26, 30, 33, 36, 40, 41, 42, 43, 44 and 45 and sequences at least 95% identical thereto.

3. An isolated antibody or antigen binding portion thereof as claimed in claim 2 in which the sequence of the VH domain is SEQ ID NO: 148 or SEQ ID NO: 150.

4. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a VL domain having a sequence selected from the group consisting of SEQ ID NOs 2, 4, 6, 46, 49 and 62 and sequences at least 95% identical thereto.

5. An isolated antibody or antigen binding portion thereof as claimed in claim 4 in which the sequence of the VL domain is SEQ ID NO: 149 or SEQ ID NO: 4.

6. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is DYAMH (SEQ ID NO: 124) or GYYWS (SEQ ID NO: 125).

7. An isolated antibody or antigen binding portion thereof as claimed in claim 6 in which the sequence of CDR3 is DMCSSSGCPDGYFDS (SEQ ID NO: 126), DLCSSGGCPEGYFDS (SEQ ID NO: 152), DMCSSGGCPDGYFDS (SEQ ID NO: 153), DMCSSGGCPEGYFDS (SEQ ID NO: 154), GEIYDFWNSYMDV (SEQ ID NO: 127), GEIYDFWKSYMDV (SEQ ID NO: 128), GEIYDFYKSYLDV (SEQ ID NO: 155), GEIYDFYKSYMDV (SEQ ID NO: 156), GEIYDFWKSYLDV (SEQ ID NO: 129) or GEIYDFYNSYMDV (SEQ ID NO: 130).

8. An isolated antibody or antigen binding portion thereof as claimed in claim 6 or 7 in which the sequence of CDR2 is TIIWNSAIIGYADSVKG (SEQ ID NO: 131),

EINHSGSTNYNPSLKS (SEQ ID NO: 132), EINPSGSTNYNPSLKS (SEQ ID NO: 133) or EINHAGSTNYNPSLKS (SEQ ID NO: 134).

9. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_H domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is GFTFDDY (SEQ ID NO: 135) or GGSFSGY (SEQ ID NO: 136).

10. An isolated antibody or antigen binding portion thereof as claimed in claim 9 in which the sequence of CDR3 is DMCSSSGCPDGYFDS (SEQ ID NO: 126), DLCSSGGCPEGYFDS (SEQ ID NO: 152), DMCSSGGCPDGYFDS (SEQ ID NO: 153), DMCSSGGCPEGYFDS (SEQ ID NO: 154), GEIYDFWNSYMDV (SEQ ID NO: 127), GEIYDFWKSYMDV (SEQ ID NO: 128), GEIYDFYKSYLDV (SEQ ID NO: 155), GEIYDFYKSYMDV (SEQ ID NO: 156), GEIYDFWKSYLDV (SEQ ID NO: 129) or GEIYDFYNSYMDV (SEQ ID NO: 130).

11. An isolated antibody or antigen binding portion thereof as claimed in claim 9 or 10 in which the sequence of CDR2 is IWNSAI (SEQ ID NO: 137), NHSGS (SEQ ID NO: 138), NPSGS (SEQ ID NO: 139) or NHAGS (SEQ ID NO: 140).

12. An isolated antibody or antigen binding portion thereof which binds to human CD1d wherein the isolated antibody or antigen binding portion thereof comprises a V_L domain comprising human FR1, FR2, FR3 and FR4 framework sequences and CDR1, CDR2 and CDR3 sequences and wherein the sequence of CDR1 is RASQHISSWLA (SEQ ID NO: 141) or ASSSGAVSSGNFPN (SEQ ID NO: 142).

13. An isolated antibody or antigen binding portion thereof as claimed in claim 12 in which the sequence of CDR3 is QQANRFPLT (SEQ ID NO: 143) or LLYFGDTQLGV (SEQ ID NO: 144).

14. An isolated antibody or antigen binding portion thereof as claimed in claim 12 or 13 in which the sequence of CDR2 is AASSLQS (SEQ ID NO: 145) or SASNKHS (SEQ ID NO: 146).

15. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 2 to 14 in which the isolated antibody or antigen binding portion thereof comprises a VH and VL sequence pair selected from the group consisting SEQ ID NO: 1 and SEQ ID NO: 2, SEQ ID NO: 23 and SEQ ID NO: 46, SEQ ID NO: 24 and SEQ ID NO: 47, SEQ ID NO: 5 and SEQ ID NO: 6, SEQ ID NO: 25 and SEQ

ID NO: 48, SEQ ID NO: 26 and SEQ ID NO: 49, SEQ ID NO: 27 and SEQ ID NO: 50, SEQ ID NO: 28 and SEQ ID NO: 51, SEQ ID NO: 29 and SEQ ID NO: 52, SEQ ID NO: 30 and SEQ ID NO: 53, SEQ ID NO: 31 and SEQ ID NO: 54, SEQ ID NO: 32 and SEQ ID NO: 55, SEQ ID NO: 33 and SEQ ID NO: 56, SEQ ID NO: 34 and SEQ ID NO: 57, SEQ ID NO: 35 and SEQ ID NO: 58, SEQ ID NO: 36 and SEQ ID NO: 59, SEQ ID NO: 37 and SEQ ID NO: 60, SEQ ID NO: 38 and SEQ ID NO: 61, SEQ ID NO: 40 and SEQ ID NO: 62, SEQ ID NO: 41 and SEQ ID NO: 63, SEQ ID NO: 42 and SEQ ID NO: 64, SEQ ID NO: 3 and SEQ ID NO: 4, SEQ ID NO: 7 and SEQ ID NO: 4, SEQ ID NO: 8 and SEQ ID NO: 4, SEQ ID NO: 9 and SEQ ID NO: 4, SEQ ID NO: 43 and SEQ ID NO: 65, SEQ ID NO: 44 and SEQ ID NO: 66, and SEQ ID NO: 45 and SEQ ID NO: 67.

16. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 15 wherein the isolated antibody or antigen binding portion thereof binds to CD1d with an EC50 of from 0.5ng/ml to 20ng/ml as measured using a cell based potency assay.

17. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 16 wherein the isolated antibody or antigen binding portion thereof comprises a human kappa chain constant region.

18. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 17 wherein the isolated antibody or antigen binding portion thereof comprises a human lambda chain constant region.

19. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 18 wherein the isolated antibody or antigen binding portion thereof comprises an IgG1 or IgG4 constant region.

20. An isolated antibody or antigen binding portion thereof as claimed in claim 19 wherein the isolated antibody or antigen binding portion thereof comprises an IgG4 constant region which includes an S228P mutation.

21. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 20 wherein the isolated antibody or antigen binding portion thereof is an antibody.

22. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 20 wherein the isolated antibody or antigen binding portion thereof is an Fab, F(ab)2, scFv or a domain antibody.

23. An isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 22 wherein the antibody or antigen binding portion thereof is modified to modulate a functional characteristic selected from the group consisting of antibody-dependent cellular cytotoxicity, complement-dependent cytotoxicity, serum half-life, biodistribution and binding to Fc receptors.

24. A composition comprising an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 22 and a pharmaceutically acceptable carrier.

25. An isolated DNA molecule which encodes the isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 22.

26. An isolated DNA molecule as claimed in claim 25 wherein the sequence of the DNA molecule is selected from the group consisting of SEQ ID NOs. 10 to 18 and 68 to 115, or a sequence at least 95% identical thereto or a sequence which hybridises thereto under moderate to high stringency conditions.

27. A transformed cell which produces an antibody or antigen binding portion thereof as claimed in any one of claims 1 to 22.

28. A transformed cell as claimed in claim 27 in which the cell is transformed with a DNA molecule as claimed in claim 25 or 26.

29. The use of an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 23 in the preparation of a medicament for the treatment of a condition involving NKT cell effector function.

30. A method of detecting the presence of human or cynomolgus CD1d in a sample the method comprising contacting a sample suspected to contain CD1d with the isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 23 under conditions which allows the binding of the antibody or antigen binding portion thereof to CD1d to form a complex and detecting the presence the complex in the sample.

31. The method according to claim 30, wherein the CD1d in a sample is cell membrane bound CD1d.

32. The isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 23 for use in the treatment of a condition involving NKT cell effector function.

33. A method of detecting the presence of human CD1d-positive cells in a cell sample the method comprising contacting a population of cells with an isolated antibody or antigen binding portion thereof as claimed in any one of claims 1 to 23 to allow the binding of the antibody or antigen binding portion thereof to CD1d-positive cells to form a complex and detecting the presence of the antibody or antigen binding portion thereof -cell complex.

34. A method as claimed in claim 33 wherein the cell sample is a peripheral blood sample or a cell line sample.

35. A method of selecting a CD1d-binding protein which binds specifically to human CD1d and competes for binding on CD1d with at least one antibody selected from the group consisting of 401.11, 402.8 and 401.11.158 from a plurality of CD1d-binding proteins, the method comprising:

contacting the plurality of CD1d-binding proteins to a human CD1d mutein in which the amino acids located at positions 87 to 93 and 141to 143 of SEQ ID NO: 116 have been substituted with corresponding murine amino acids at these positions, under conditions sufficient to allow binding of CD1d-binding proteins to the mutein to form a CD1d-binding protein-human CD1d mutein complex and a depleted plurality of CD1d-binding proteins which do not bind the human CD1d mutein, and collecting CD1d-binding proteins which do not bind to the human CD1d mutein from the depleted plurality of CD1d-binding proteins, wherein the collected CD1d-binding proteins bind specifically to human CD1d and compete for binding on CD1d with at least one antibody selected from the group consisting of 401.11, 402.8 and 401.11.158.

36. A method of selecting a CD1d-binding protein which binds specifically to human CD1d from a plurality of CD1d-binding proteins, the method comprising:

contacting the plurality of CD1d-binding proteins to hCD1dmu (SEQ ID NO: 119) in which the amino acids located at positions 87 to 93 and 141 to 143 of human CD1d (SEQ ID NO 116) have been replaced with the corresponding murine sequence at this location, under conditions sufficient to allow binding of CD1d-binding proteins to the hCD1dmu to form a CD1d-binding protein-hCD1dmu complex and a depleted plurality of CD1d binding proteins which do not bind hCD1dmu and collecting CD1d-binding proteins which do not bind to the hCD1dmu from the depleted plurality of CD1d-binding proteins, wherein the collected CD1d binding proteins bind specifically to human CD1d (SEQ ID NO: 116) or mCD1dhu (SEQ ID NO: 118).