CLAIMS

1. Use of a naked blocking antibody that binds selectively iNKT cells, wherein the blocking antibody is a depleting antibody, for the manufacture or preparation of a medicament to suppress an immune response by suppressing iNKT cell function and depleting iNKT cells in a subject in need thereof.

2. The use of claim 1, wherein the subject's immune response to an antigen is suppressed.

3. The use of claim 2, wherein the antigen is an allergen.

4. The use of claim 1, wherein the subject:

(a) has asthma and the treatment suppresses in the subject one or more symptoms of asthma, wherein said asthma is preferably allergic asthma, and said subject is preferably human;

(b) has COPD and wherein the treatment suppresses in the subject one or more symptoms of COPD;

(c) has an airway hyper-reactivity disorder and the treatment suppresses in the subject one or more symptoms of the disorder; or,

(d) is human.

5. The use of claim 4, wherein the subject is human and antibody is a fully human antibody.

6. The use of claim 5, wherein the antibody:

(a) has three light-chain and three heavy-chain CDR regions, and wherein each of the three light-chain and three heavy-chain CDR regions is a composite of human sequences;

(b) has a relative IC50 compared to mouse antibody 6B11 that is between 0.2 and 0.4 for binding to recombinant soluble human iTCR;

(c) has a light chain variable region comprising SEQ ID Nos. 24, 25 and 26 and a leucine at position 85; or,

(d) has a heavy chain variable region comprising SEQ ID Nos. 21, 22 and 23 and a valine at position 23 and/or a threonine at position 99.

7. The use of claim 1, wherein the antibody:

(a) binds the epitope defined by SEQ ID No. 1;

(b) binds the epitope defined by SEQ ID Nos. 1 and 2;

(c) comprises a light chain variable region selected from SEQ ID Nos. 15, 16, 17, 18, 19 or 20;

(d) comprises a heavy chain variable region selected from SEQ ID Nos. 7, 8, 9, 10, 11, 12, 13 or 14;

(e) comprises NKTT120; or,

(f) induces no significant change in one or more serum cytokine levels after administration to the subject.

8. Use of the a composition comprising an isolated, humanized antibody that binds selectively iNKT cells, wherein the antibody has a relative IC50 compared to antibody 6611 of less than 0.9 for binding to recombinant soluble, human iTCR , wherein the antibody has a heavy chain variable region with a sequence that is SEQ ID No. 27 and a light chain variable region with a sequence that is SEQ ID No. 29, for the manufacture or preparation of a medicament for depleting iNKT cells in a subject in need of such treatment, wherein said subject is a human subject.

9. The use of claim 8, wherein:

(a) the subject has an airway hyper-reactivity condition, an allergy, an autoimmune disease, an inflammatory condition other than allergy, an ischemia reperfusion injury, a vasculitic diseases, sickle cell anemia, or is scheduled for or has had a transplant; or,

(b) the antibody induces no significant change in one or more serum cytokine levels after administration to the subject.

AMENDED CLAIMS
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1 A method of treatment to suppress an immune response, comprising administering to a subject in need of treatment a naked blocking antibody that binds selectively iNKT cells in an amount effective to suppress the subject's iNKT cell function, wherein the blocking antibody is a depleting antibody and the amount is effective to deplete iNKT cells.

2. The method of claim 1, wherein the subject's immune response to an antigen is suppressed.

3. The method of claim 2, wherein the antigen is an allergen.

4. The method of claim 1, wherein the subject has asthma and wherein the treatment suppresses in the subject one or more symptoms of asthma.

5. The method of claim 4, wherein the asthma is allergic asthma.

6. The method of claim 1, wherein the subject has COPD and wherein the treatment suppresses in the subject one or more symptoms of COPD.

7. The method of claim 1, wherein the subject has an airway hyper-reactivity disorder and the treatment suppresses in the subject one or more symptoms of the disorder.

8. The method of claim 1, wherein the subject is human.

9. The method of claim 4, wherein the subject is human.

10. The method of claim 9, wherein the antibody is a fully human antibody.

11. The method of claim 10, wherein the antibody has three light-chain and three heavy-chain CDR regions, and wherein each of the three light-chain and three heavy-chain CDR regions is a composite of human sequences.

12. The method of claim 10, wherein the antibody binds iNKT cells with an IC 50 that is less than 1.0μg/ml for binding to recombinant soluble human iTCR.

13. The method of claim 10, where in the antibody has a light chain variable region comprising SEQ ID Nos. 24, 25 and 26 and a leucine at position 85.

14. The method of claim 10, wherein the antibody has a heavy chain variable region comprising SEQ ID Nos. 21, 22 and 23 and a valine at position 23 and/or a threonine at position 99.

15. The method of claim 1, wherein the antibody binds the epitope defined by SEQ ID No. 1.

16. The method of claim 1, wherein the antibody binds the epitope defined by SEQ ID Nos. 1 and.2.

17. The method of claim 1, wherein the antibody comprieses a light chain variable region selected from SEQ ID Nos. 15, 16, 17, 18, 19 or 20.

18. The method of claim 1, wherein the antibody comprises a heavy chain variable region selected from SEQ ID Nos. 7, 8, 9, 10, 11, 12, 13 or 14.

19. The method of claim 1, wherein the antibody comprises NKTT120.

20. The method of claim 1, wherein the antibody induces no significant change in one or more serum cytokine levels after administration to the subject.

21. A composition comprising, an isolated, humanized antibody that binds selectively iNKT cells, wherein the antibody has an IC50 of less than 0.9 μg/ml for binding to recombinant soluble, human iTCR.

22. The composition of claim 21, wherein the heavy chain variable region and the light chain variable region consist of human sequences.

23. The composition of claim 21, wherein the IC50 is less than 0.5 μg/ml.

24. The composition of claim 21, wherein the IC50 is less than 0.3 μg/ml.

25. The composition of claim 21, wherein the IC50 is between 0.1 and 0.5 μg/ml.

26. The composition of claims 21- 25, wherein the antibody binds the epitope defined by SEQ ID No. 1.

27. The composition of claims 21- 25, wherein the antibody has three light CDR regions and three heavy CDR regions, and wherein each of the three light and three heavy CDR regions is a composite of human sequences.

28. The composition of claims 21- 25, wherein the antibody has a light chain variable region comprising SEQ ID Nos. 24, 25 and 26 and a leucine at position 85.

29. The composition of claims 21- 25, wherein the antibody has a heavy chain variable region comprising SEQ ID Nos. 21, 22 and 23 and a valine at position 23 and/or a threonine at position 99.

30. The composition of claim 21, wherein the antibody has a light chain variable region having sequence comprising SEQ ID Nos. 24, 25 and 26 and a leucine at position 85 and a heavy chain variable region comprising SEQ ID Nos. 21, 22 and 23 and a valine at position 23 and/or a threonine at position 99.

31. The composition of claim 21, wherein the antibody comprises a heavy chain variable region have a sequenced selected from SEQ ID Nos. 7, 8, 9, 10, 11, 12, 13 or 14.

32. The composition of claim 21, wherein the antibody comprises a light chain variable region having a sequence selected from SEQ ID Nos. 15, 16,17, 18, 19 or 20.

33. The composition of claim 21, wherein the antibody comprises a light chain variable region having a sequence selected from SEQ ID Nos. 17 or 18.

34. The composition of claim 21, wherein the antibody comprises a heavy chain variable region having a sequence selected from SEQ ID Nos. 7, 8, 9, 10, or 14 and a light chain variable region having a sequence selected from SEQ ID Nos. 17 or 18.

35. The composition of claim 21, wherein the antibody has a light chain variable region with a sequence selected from SEQ ID Nos. 17 or 18 and a heavy chain variable region with a sequence selected from SEQ ID Nos. 9 or 10.

36. The composition of claim 21, wherein the antibody has a heavy chain variable region with a sequence that is SEQ ID No. 27 and a light chain variable region with a sequence that is SEQ ID No. 29.

37. The composition of claim 21, wherein the antibody has a heavy chain variable region with a sequence that is SEQ ID No. 28 and a light chain variable region with a sequence that is SEQ ID No. 29.

38. The composition of claim 21, wherein the antibody is a Depleting Antibody.

39. The composition of claim 38, wherein the antibody induces no significant change in one or more serum cytokine levels after administration to a subject.

40. The composition of claim 21, wherein the antibody is an Activating Antibody.

41. A method for treating a subject by depleting iNKT cells in the subject comprising administering to a human subject in need of such treatment an amount of a composition of claim 37 effective to deplete iNKT cells in the human subject.

42. The method of claim 41, wherein the subject has an airway hyper-reactivity condition, an allergy, an autoimmune disease, an inflammatory condition other than allergy, an ischemia reperfusion injury, a vasculitic diseases, sickle cell anemia, or is scheduled for or has had a transplant.

43. The method of claim 41, wherein the antibody induces no significant change in one or more serum cytokine levels after administration to the subject.

44. A method for treating a subject by activating iNKT cells in the subject comprising administering to a human subject in need of such treatment an amount of a composition of claim 40 effective to activate iNKT cells in the human subject.

45. The method of claim 44, wherein the subject has an infectious disease or has cancer.