We claim:

1. An isolated human monoclonal antibody, wherein the antibody binds human Dendritic and Epithelial Cell 205 receptor (DEC-205) and exhibits at least one of the following properties:

(a) binds to human DEC-205 with an affinity constant of at least 10^8 M^{-1} as determined by surface plasmon resonance;

(b) is internalized after binding to human dendritic cells expressing DEC-205;

(c) generates or enhances human CD4+ T-cell responses to an antigen;

(d) generates or enhances human CTL or NKT responses to an antigen;

(e) localizes to antigen processing compartments in dendritic cells; or

(f) induces peripheral $CD8^+$ T cell tolerance.

2. The antibody of claim 1, wherein, the human T-cell response is mediated by either MHC Class I or Class II pathways or both.

3. An isolated human monoclonal antibody that binds to an epitope located on the extracellular domain of human DEC-205.

4. An isolated monoclonal antibody, wherein the antibody binds to human DEC-205 and comprises a heavy chain variable region that (a) utilizes a human germline V_H 3-33 gene and (b) comprises at least one of the amino acid substitutions in any one of SEQ ID NOS: 28, 4, 16, 40, 52, 76 and 88 as compared to SEQ ID NO: 95

5. An isolated monoclonal antibody, wherein the antibody binds to human DEC-205 and comprises a heavy chain variable region that (a) utilizes a human germline Orph-C16 gene and (b) comprises at least one of the amino acid substitutions in either of SEQ ID NOS: 64 and 70 as compared to SEQ ID NO: 96.

6. The antibody of either claim 4 or 5, wherein the antibody further comprises a light chain variable region selected from the group consisting of a region that (a) utilizes a human germline VK3-L6 gene that comprises at least one of the amino acid substitutions in any one of SEQ ID NOs: 34, 46, 58, as compared to SEQ ID NO: 92; (b) utilizes a human germline VK1-L4 gene and comprises at least one of the amino acid substitutions in SEQ ID NO: 22 or 82 as compared to SEQ ID NO: 93; and (c) utilizes a human germline VK1-L15 gene and comprises at least one of the amino acid substitutions in SEQ ID NO: 10 as compared to SEQ ID NO: 94.

7. An isolated monoclonal antibody, wherein the antibody binds to human DEC-205 and comprises a heavy chain variable region that either:

(i) utilizes a human germline V_H 3-33 gene and comprises at least one of the amino acid substitutions in any one of SEQ ID NOS: 28, 4, 16, 40, 52, 76 and 88 as compared to SEQ ID NO: 95; or

(ii) utilizes a human germline Orph-C16 gene and comprises at least one of the amino acid substitutions in either of SEQ ID NOS: 64 and 70 as compared to SEQ ID NO: 96;

and wherein the antibody further comprises a light chain variable region that either:

(a) utilizes a human germline VK3-L6 gene that comprises at least one of the amino acid substitutions in any one of SEQ ID NOs: 34, 46, 58, as compared to SEQ ID NO: 92;

(b) utilizes a human germline VK1-L4 gene and comprises at least one of the amino acid substitutions in SEQ ID NO: 22 or 82 as compared to SEQ ID NO: 93; or

(c) utilizes a human germline VK1-L15 gene and comprises at least one of the amino acid substitutions in SEQ ID NO: 10 as compared to SEQ ID NO: 94.

8. An isolated monoclonal antibody, wherein the antibody binds to human DEC-205 and comprises a heavy chain variable region selected from the group consisting of SEQ ID NOS: 28, 4, 16, 40, 52, 64, 70, 76 or 88 and conservative sequence modifications thereof; and a light chain variable region selected from the group consisting of SEQ ID NOS: 34, 10, 22, 46, 58 or 82 and conservative sequence modifications thereof.

9. An isolated monoclonal antibody which binds to human DEC-205, wherein the antibody comprises:

a heavy chain variable region comprising CDR1, CDR2, and CDR3 sequences; and

a light chain variable region comprising CDR1, CDR2, and CDR3 sequences, wherein

the heavy chain variable region CDR3 sequence comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 31, 7, 19, 43, 55, 67, 73, 79, 91 and conservative sequence modifications thereof.

10. The antibody of claim 9, wherein the light chain variable region CDR3 sequence comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 37, 13, 25, 49, 61, 85, and conservative sequence modifications thereof.

11. The antibody of claim 10, wherein the heavy chain variable region CDR2 sequence comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 30, 6, 18, 42, 54, 66, 72, 78, 90 and conservative sequence modifications thereof; and the light chain variable region CDR2 sequence comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 36, 12, 24, 48, 60, 84, and conservative sequence modifications thereof.

12. The antibody of claim 11, wherein the heavy chain variable region CDR1 sequence comprises an amino acid sequence selected from the group consisting of SEQ ID NOs: 29, 5, 17, 41, 53, 65, 71, 77, 89 and conservative sequence modifications thereof; and the light chain variable region CDR1 sequence is selected from the group consisting of SEQ ID NOs: 35, 11, 23, 47, 59, 83, and conservative sequence modifications thereof.

13. The antibody of any one of clams 9-12, wherein the conservative sequence modifications are conservative amino acid substitutions.

14. An isolated monoclonal antibody which binds to human DEC-205 and comprises heavy and light chain variable region CDR1, CDR2 and CDR3 sequences selected from the group consisting of:

(i) a heavy chain variable region CDR1 comprising SEQ ID NO: 29;
a heavy chain variable region CDR2 comprising SEQ ID NO: 30;
a heavy chain variable region CDR3 comprising SEQ ID NO: 31;
a light chain variable region CDR1 comprising SEQ ID NO: 35;
a light chain variable region CDR2 comprising SEQ ID NO: 36;
a light chain variable region CDR3 comprising SEQ ID NO: 37;
or conservative sequence modifications thereof;

(ii) a heavy chain variable region CDR1 comprising SEQ ID NO: 17;
a heavy chain variable region CDR2 comprising SEQ ID NO: 18;
a heavy chain variable region CDR3 comprising SEQ ID NO: 19;
a light chain variable region CDR1 comprising SEQ ID NO: 23;
a light chain variable region CDR2 comprising SEQ ID NO: 24;
a light chain variable region CDR3 comprising SEQ ID NO: 25;
or conservative sequence modifications thereof;

(iii) a heavy chain variable region CDR1 comprising SEQ ID NO: 5;
a heavy chain variable region CDR2 comprising SEQ ID NO: 6;
a heavy chain variable region CDR3 comprising SEQ ID NO: 7;
a light chain variable region CDR1 comprising SEQ ID NO: 11;
a light chain variable region CDR2 comprising SEQ ID NO: 12;
a light chain variable region CDR3 comprising SEQ ID NO: 13;
conservative sequence modifications thereof;

(iv) a heavy chain variable region CDR1 comprising SEQ ID NO: 41;
a heavy chain variable region CDR2 comprising SEQ ID NO: 42;
a heavy chain variable region CDR3 comprising SEQ ID NO: 43;
a light chain variable region CDR1 comprising SEQ ID NO: 47;
a light chain variable region CDR2 comprising SEQ ID NO: 48;

a light chain variable region CDR3 comprising SEQ ID NO: 49;
or conservative sequence modifications thereof;

(v) a heavy chain variable region CDR1 comprising SEQ ID NO: 53;
a heavy chain variable region CDR2 comprising SEQ ID NO: 54;
a heavy chain variable region CDR3 comprising SEQ ID NO: 55;
a light chain variable region CDR1 comprising SEQ ID NO: 59;
a light chain variable region CDR2 comprising SEQ ID NO: 60;
a light chain variable region CDR3 comprising SEQ ID NO: 61;
or conservative sequence modifications thereof; and

(viii) a heavy chain variable region CDR1 comprising SEQ ID NO: 77;
a heavy chain variable region CDR2 comprising SEQ ID NO: 78;
a heavy chain variable region CDR3 comprising SEQ ID NO: 79;
a light chain variable region CDR1 comprising SEQ ID NO: 83;
a light chain variable region CDR2 comprising SEQ ID NO: 84;
a light chain variable region CDR3 comprising SEQ ID NO: 85;
or conservative sequence modifications thereof.

15. An isolated monoclonal antibody which binds to human DEC-205 and comprises:

a heavy chain variable region CDR1 comprising SEQ ID NO: 29;
a heavy chain variable region CDR2 comprising SEQ ID NO: 30;
a heavy chain variable region CDR3 comprising SEQ ID NO: 31;
a light chain variable region CDR1 comprising SEQ ID NO: 35;
a light chain variable region CDR2 comprising SEQ ID NO: 36;
and
a light chain variable region CDR3 comprising SEQ ID NO: 37.

16. An isolated monoclonal antibody which binds to human DEC-205, wherein the antibody comprises:

a heavy chain variable region comprising CDR1, CDR2, and CDR3 sequences; and

a light chain variable region comprising CDR1, CDR2, and CDR3 sequences, wherein

the heavy chain variable region CDR3 sequence comprises an amino acid sequence selected from the consensus sequence: (A,G,Y,S,P,-) (P,W,S,R) (Y,A,H) F D (Y,L,V) (SEQ ID NO: 99), wherein "-" denotes the option of no amino acid residue being present at that consensus position.

17. The antibody of claim 16, wherein the light chain variable region CDR3 sequence comprises an amino acid sequence selected from the consensus sequence: Q Q (R,Y,F) (R,N) (T,S,N) (Y,W,-) (P,-) (Y,L,H,-) (T,-) (SEQ ID NO: 102), wherein "-" denotes the option of no amino acid residue being present at that consensus position.

18. The antibody of claim 17, wherein the heavy chain variable region CDR2 sequence comprises an amino acid sequence selected from the consensus sequence: (V,I,F,T,A) I (W,G) (Y,T) (D,G) G (S,G,Y) (N,T) (K,P) Y (Y,A,V) (A,G,-) D S V K G (SEQ ID NO: 98), wherein "-" denotes the option of no amino acid residue being present at that consensus position, and the light chain variable region CDR2 sequence comprises an amino acid sequence selected from the consensus sequence: (D,A) A S (N,S) (R,L) (A,Q,E) (T,S) (SEQ ID NO: 101).

19. The antibody of claim 18, wherein the heavy chain variable region CDR1 sequence comprises an amino acid sequence selected from the consensus sequence: (I,N,T,S) Y (G,N,A) M (H,Y) (SEQ ID NO: 97); and the light chain variable region CDR1 sequence comprises an amino acid sequence selected from the consensus sequence: R A S Q (S,G) (I,V) S S (Y,W,A) L A (SEQ ID NO: 100).

20. An isolated monoclonal antibody which binds to human DEC-205 and comprises heavy and light chain variable region CDR1, CDR2 and CDR3 sequences selected from the group consisting of:

(i) a heavy chain variable region CDR1 comprising an amino acid sequence selected from the consensus sequence: (I,N,T,S) Y (G,N,A) M (H,Y) (SEQ ID NO: 97);

(ii) a heavy chain variable region CDR2 comprising an amino acid sequence selected from the consensus sequence: (V,I,F,T,A) I (W,G) (Y,T) (D,G) G (S,G,Y) (N,T) (K,P) Y (Y,A,V) (A,G,-) D S V K G (SEQ ID NO: 98);

(iii) a heavy chain variable region CDR3 comprising an amino acid sequence selected from the consensus sequence: (A,G,Y,S,P,-) (P,W,S,R) (Y,A,H) F D (Y,L,V) (SEQ ID NO: 99);

(iv) a light chain variable region CDR1 comprising an amino acid sequence selected from the consensus sequence: R A S Q (S,G) (I,V) S S (Y,W,A) L A (SEQ ID NO: 100);

(v) a light chain variable region CDR2 comprising an amino acid sequence selected from the consensus sequence: (D,A) A S (N,S) (R,L) (A,Q,E) (T,S) (SEQ ID NO: 101);

(vi) a light chain variable region CDR3 comprising an amino acid sequence selected from the consensus sequence: Q Q (R,Y,F) (R,N) (T,S,N) (Y,W,-) (P,-) (Y,L,H,-) (T,-) (SEQ ID NO: 102); wherein "-" denotes the option of no amino acid residue being present at that consensus position.

21. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 28, 4, 16, 40, 52, 64, 70, 76, 88 and conservative sequence modifications thereof.

22. The antibody of claim 21, further comprising a light chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 34, 10, 22, 46, 58, 82, and conservative sequence modifications thereof.

23. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region and a light chain variable region comprising the amino acid sequences selected from the group consisting of:

(a) SEQ ID NOs: 28 and 34, respectively, and conservative sequence modifications thereof;

(b) SEQ ID NOs: 16 and 22, respectively, and conservative sequence modifications thereof;

(c) SEQ ID NOs: 4 and 10, respectively, and conservative sequence modifications thereof;

(d) SEQ ID NOs: 40 and 46, respectively, and conservative sequence modifications thereof;

(e) SEQ ID NOs: 52 and 58, respectively, and conservative sequence modifications thereof;

(d) SEQ ID NOs: 76 and 82, respectively, and conservative sequence modifications thereof.

24. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region comprising the amino acid sequence SEQ ID NO: 28 and a light chain variable region comprising the amino acid sequence SEQ ID NO: 34.

25. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region comprising an amino acid sequence which is at least 90% identical to the amino acid sequence selected from the group consisting of SEQ ID NOs: 28, 4, 16, 40, 52, 64, 70, 76, and 88.

26. The antibody of claim 25, further comprising a light chain variable region comprising an amino acid sequence which is at least 90% identical to the amino acid sequence selected from the group consisting of SEQ ID NOs: 34, 10, 22, 46, 58, and 82.

27. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region and a light chain variable region comprising an amino acid sequence at least 90% identical to the amino acid sequences selected from the group consisting of:

(a) SEQ ID NOs: 28 and 34, respectively;

(b) SEQ ID NOs: 16 and 22, respectively;
(c) SEQ ID NOs: 4 and 10, respectively
(d) SEQ ID NOs: 40 and 46, respectively;
(e) SEQ ID NOs: 52 and 58, respectively; and
(f) SEQ ID NOs: 76 and 82, respectively.

28. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region comprising an amino acid sequence at least 90% identical to the amino acid sequence SEQ ID NO: 28 and a light chain variable region comprising an amino acid sequence at least 90% identical to the amino acid sequence SEQ ID NO: 34.

29. An isolated monoclonal antibody which binds to human DEC-205 and comprises a heavy chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 28, 4, 16, 40, 52, 64, 70, 76, and 88 or sequences wherein at least one amino acid residue in the framework region of the heavy chain variable region is substituted with the corresponding germline residue.

30. The antibody of claim 29, further comprising a light chain variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 34, 10, 22, 46, 58, and 82, or sequences wherein at least one amino acid residue in framework region of the light chain variable region is substituted with the corresponding germline residue.

31. The antibody of claim 29 or 30, wherein the at least one substituted amino acid residue is selected from the group consisting of: a residue that non-covalently binds antigen directly; a residue adjacent to a CDR; a CDR-interacting residue; a residue participating in the VL-VH interface, a canonical residue, a vernier zone residue, and an interchain packing residue.

32. The antibody of any one of the preceding claims, wherein the antibody is selected from the group consisting of an IgG1, an IgG2, an IgG3, an IgG4, an IgM, an IgA1, an IgA2, an IgAsec, an IgD, and an IgE antibody.

33. An isolated antibody that competes for binding with the antibody of any one of claims 1-2 or 4-31.

34. An isolated monoclonal antibody that binds human DEC-205, wherein the antibody comprises a heavy chain variable region and a light chain variable region encoded by nucleic acid sequences selected from the group consisting of:

(a) SEQ ID NOs: 26 and 32, respectively;

(b) SEQ ID NOs: 14 and 20, respectively;

(c) SEQ ID NOs: 2 and 8, respectively;

(d) SEQ ID NOs: 38 and 44, respectively;

(e) SEQ ID NOs: 50 and 56, respectively; and

(f) SEQ ID NOs: 74 and 80, respectively;

or nucleic acid sequences having at least 90% identity to the nucleic acid sequences of (a)-(f).

35. The antibody of any one of the preceding claims wherein the antibody is a human antibody.

36. An expression vector comprising a nucleotide sequence encoding the variable region of a light chain, heavy chain, or both light and heavy chains of an antibody which binds human DEC-205.

37. An expression vector comprising a nucleotide sequence encoding the variable region of a light chain, heavy chain, or both light and heavy chains of an antibody which binds human DEC-205 as claimed in any one of claims 1-34.

38. A cell transformed with an expression vector as claimed in claim 36 or claim 37.

39. A molecular conjugate comprising the antibody of any one of claims 1-34, linked to an antigen.

40. The molecular conjugate of claim 39, wherein the antigen comprises a component of a pathogen.

41. The molecular conjugate of claim 39, wherein the antigen comprises a tumor antigen, allergen or an autoantigen.

42. The molecular conjugate claim 39, wherein the antigen comprises a tumor antigen.

43. The molecular conjugate claim 42, wherein the tumor antigen is selected from the group consisting of βhCG, gp100 or Pmel17, HER2/neu, WT1, mesothelin, CEA, gp100, MART1, TRP-2, NY-BR-1, NY-CO-58, MN (gp250), idiotype, Tyrosinase, Telomerase, SSX2, MUC-1, MART1, melan-A, NY-ESO-1, MAGE-1, MAGE-3, MAGE-A3, and high molecular weight-melanoma associated antigen (HMW-MAA).

44. The molecular conjugate of claim 43, wherein the tumor antigen is a sequence from βhCG, NY-ESO-1, mesothelin, or HER2/neu

45. The molecular conjugate of claim 40, wherein the antigen is from HIV, HPV, HBV or HCV.

46. The molecular conjugate of any one of claims 40-45, further comprising a therapeutic agent.

47. The molecular conjugate of claim 46, wherein the therapeutic agent is selected from the group consisting of a cytotoxic agent, an immunosuppressive agent, and a chemotherapeutic agent.

48. A bispecific molecule comprising the antibody of any one of claims 1-34 linked to a molecule having a binding specificity which is different from the antibody.

49. A composition comprising the antibody of claims 1-34, the molecular conjugate of any one of claims 39-47, or the bispecific molecule of claim 48, and a pharmaceutically effective carrier.

50. The composition of claim 49, further comprising a therapeutic agent.

51. The composition of claim 50, wherein the agent is an immunosuppressive agent.

52. The composition of claim 50, wherein the therapeutic agent is an antibody.

53. The composition of claim 49 comprising an immunostimulatory agent selected from a TLR3, TLR4, TLR5, TLR6, TLR7, LTR8 or TLR9 agonist.

54. A method for targeting an antigen to DEC-205 in a subject comprising administering to the subject the composition according to claim 49.

55. A method of inducing or enhancing an immune response against an antigen in a subject comprising administering to the subject the composition according to claim 49.

56. The method of claim 55, wherein the immune response comprises presentation of the antigen as a component of an MHC-I and/or MHC-II conjugate.

57. A method of inducing or enhancing a T cell-mediated immune response in a subject against an antigen, comprising administering to the subject the composition according to claim 49, such that the antigen is processed and presented to T cells in a manner which induces or enhances a T cell-mediated response against the antigen.

58. The method of claims 57, wherein the T cell response is mediated by both CD4+ and CD8+ T cells.

59. The method of claim 57 wherein the T cell response is mediated by cytotoxic T cells or helper T cells.

60. A method of immunizing a subject comprising administering to the subject the composition according to claim 49.

61. The method of claim 60, wherein the composition is administered in an amount sufficient to induce cytokine release by dendritic cells.

62. A method of treating a disorder in a subject, comprising administering to the subject an effective amount of the composition according to claim 48.

63. The method of claim 62, wherein the disorder is selected from the group of disorders consisting of colon cancer, gastric cancer, breast cancer, lung cancer, ovarian cancer, brain cancer, renal cancer, liver cancer, esophageal cancer, melanoma, lymphoma, prostate carcinoma, pancreatic carcinoma, bladder carcinoma, fibrosarcoma, rhabdomyosarcoma, mastocytoma, mammary adenocarcinoma, leukemia, and rheumatoid fibroblastsoma.

64. The method of claim 62, wherein the disorder is selected from the group of disorders consisting of bacterial, fungal, viral and parasitic infectious diseases.

65. The method of claim 62, wherein the disorder is selected from the group of disorders consisting of allergy, graft rejection and autoimmune disease.

66. The method of claim 62, wherein the disorder is selected from the group of autoimmune disorders consisting of rheumatoid arthritis, multiple sclerosis, Type 1 diabetes mellitus, myasthenia gravis, pernicious anemia, Addison's disease, Sjogren's syndrome, psoriasis, lupus erythematosus, Crohn's disease, ulcerative colitis,

scleroderma, Raynaud's syndrome, Reiter's syndrome, Hashimoto's thyroiditis or Graves's disease.

67. A method for detecting the presence or absence of DEC-205 in a biological sample, comprising:

(a) contacting a biological sample with an antibody of any one of claims 1-34, wherein the antibody is labeled with a detectable substance; and

(b) detecting the antibody bound to DEC-205 to thereby detect the presence or absence of DEC-205 in the biological sample.

68. A method for targeting an antigen to a B cell in a subject comprising administering to the subject a molecular conjugate comprising a molecule which binds a receptor on the the surface of the B cell linked to the antigen such that the B-cell stimulates MHC Class I restricted T-cells.

69. A method of inducing or enhancing an immune response against an antigen in a subject comprising administering to the subject a molecular conjugate comprising a molecule which binds a receptor on the the surface of a B cell linked to the antigen. such that the B-cell stimulates MHC Class I restricted T-cells

70. A method of immunizing a subject against an antigen comprising administering to the subject a molecular conjugate comprising a molecule which binds a receptor on the the surface of a B cell linked to the antigen such that the B-cell stimulates MHC Class I restricted T-cells.

71. The method of any one of claims 68-70, wherein the receptor is a C-type lectin receptor.

72. The method of any one of claims 68-71, wherein the receptor is DEC-205.

73. The method of any one of claims 68-72, wherein the molecule which binds the receptor is an antibody.

74. The method of claim 73, wherein the antibody is an anti-DEC-205 antibody.

75. The method of any one of claims 68-74, wherein the B cell is activated via a costimulatory pathway.

76. The method of any one of claims 68-75, wherein the antigen is presented by the B cell on MHC Class I molecules.

77. The method of any one of claims 68-76, wherein the antigen is presented on HLA-A2.1 molecules.

78. The method of any one of claims 68-77, wherein the antigen is a tumor antigen.

79. The method of claim 78, wherein the tumor antigen is βhCG.

80. The method of any one of claims 68-77, wherein the antigen is a pathogen.

81. The method of claim 78 for treating a disorder in a subject, wherein the disorder is selected from the group of disorders consisting of colon cancer, gastric cancer, breast cancer, lung cancer, ovarian cancer, brain cancer, renal cancer, liver cancer, esophageal cancer, melanoma, lymphoma, prostate carcinoma, pancreatic carcinoma, bladder carcinoma, fibrosarcoma, rhabdomyosarcoma, mastocytoma, mammary adenocarcinoma, leukemia and rheumatoid fibroblastsoma.

82. The method of claim 80 for treating a disorder in a subject, wherein the disorder is selected from the group of disorders consisting of bacterial, fungal, viral or parasitic infectious diseases.

83. An isolated human or humanized antibody which binds to an epitope bound by the antibody of any one of claims 1-3.

84. An isolated antibody which binds to an epitope bound by the antibody of any one of claims 4-31.

CLAIMS

1. An isolated monoclonal antibody which binds to human Dendritic and Epithelial Cell 205 receptor (DEC-205) and comprises:

a heavy chain variable region CDR1 comprising SEQ ID NO: 29;

a heavy chain variable region CDR2 comprising SEQ ID NO: 30;

a heavy chain variable region CDR3 comprising SEQ ID NO: 31;

a light chain variable region CDR1 comprising SEQ ID NO: 35;

a light chain variable region CDR2 comprising SEQ ID NO: 36; and

a light chain variable region CDR3 comprising SEQ ID NO: 37.

2. The antibody of claim 1 comprising a heavy chain variable region comprising SEQ ID NO:28 and a light chain variable region comprising SEQ ID NO:34 or a heavy chain variable region and a light chain variable region encoded by SEQ ID NOs: 26 and 32, respectively.

3. The antibody of claim 1, which is a human monoclonal antibody that binds human DEC-205 with an affinity constant of at least 10^8 M^{-1} as determined by surface plasmon resonance and optionally exhibits at least one of the following properties:

(a) is internalized after binding to human dendritic cells expressing DEC-205;

(b) generates or enhances human CD4+ T-cell responses to an antigen wherein, the human T-cell response is optionally mediated by either MHC Class I or Class II pathways or both;

(c) generates or enhances human CTL or NKT responses to an antigen;

(d) localizes to antigen processing compartments in dendritic cells;

(e) induces peripheral $CD8^+$ T cell tolerance; or

(f) binds to an epitope located on the extracellular domain of human DEC-205.

4. The antibody of claim 1 or 2, wherein the antibody is a human antibody.

5. The antibody of claim 1 or 2, wherein the antibody is a chimeric antibody which is an IgG2, IgG3, IgE, IgA, IgM or IgD antibody; or is an antibody selected from the group

consisting of an IgG1, an IgG2, an IgG3, an IgG4, an IgM, an IgAl , an IgA2, an IgAsec, an IgD, and an IgE antibody.

6. An expression vector comprising a nucleotide sequence encoding the antibody of any one of claims 1 to 5.

7. A cell transformed with an expression vector as claimed in claim 6.

8. A molecular conjugate comprising the antibody of any one of claims 1 to 7, linked to an antigen, an allergen or an autoantigen.

9. The molecular conjugate of claim 8, wherein the antigen is selected from the group consisting of a component of a pathogen such as HIV, HPV, HBV or HCV, a tumor antigen such as βhCG, gp100 or Pme117, HER2/neu, WT1, mesothelin, CEA, gp100, MART1, TRP-2, NY-BR-1, NY-CO-58, MN (gp250), idiotype, Tyrosinase, Telomerase, SSX2, MUC-1, MART1, melan-A, NY-ESO-1, MAGE-1, MAGE-3, MAGE-A3 and high molecular weight-melanoma associated antigen (HMW-MAA).

10. The molecular conjugate of claim 8 or 9, further comprising a therapeutic agent selected from the group consisting of a cytotoxic agent, an immunosuppressive agent, and a chemotherapeutic agent.

11. A bispecific molecule comprising the antibody of any one of claims 1 to 5 linked to a molecule having a binding specificity which is different from the antibody.

12. A composition comprising the antibody of any one of claims 1 to 5 and a pharmaceutically effective carrier, and optionally further comprising a therapeutic agent.

13. Use of the composition of claim 12 or the conjugate of any one of claims 8 to 10 in the preparation of a medicament for use in treating cancer or an autoimmune disease.

14. The composition of claim 12 or the conjugate of any one of claims 8 to 10 for use in treating a disorder in a subject, immunizing a subject, or inducing or enhancing an immune response against an antigen in a subject.

15. A method for detecting the presence or absence of DEC-205 in a biological sample, comprising:

(a) contacting a biological sample with the antibody of any one of claims 1 to 5, wherein the antibody is labeled with a detectable substance; and

(b) detecting the antibody bound to DEC-205 to thereby detect the presence or absence of DEC-205 in the biological sample.