CLAIMS

1. A pharmaceutical composition comprising an antibody or fragment thereof that specifically binds to an hOX40L epitope and comprises a heavy chain and a light chain and wherein:
    a. the heavy chain comprises a V_H region having at least 85% identity to the amino acid sequence of SEQ ID No:34; and
    b. the light chain comprises a V_L region having at least 85% identity to the amino acid sequence of SEQ ID No:48; and

    a pharmaceutically acceptable excipient, diluent or carrier; and

    further comprising a further therapeutic agent independently selected from the group consisting of rapamycin (sirolimus), tacrolimus, ciclosporin, corticosteroids (e.g. methylprednisolone), methotrexate, mycophenolate mofetil, anti-CD28 antibodies, anti-IL12/IL-23 antibodies (e.g. ustekinumab), anti-CD20 antibodies (e.g.rituximab), anti-CD30 antibodies (e.g. brentuximab), CTLA4-Fc molecules (e.g. abatacept), CCR5 receptor antagonists (e.g. maraviroc), anti-CD40L antibodies, anti-VLA4 antibodies (e.g. natalizumab), anti-LFA1 antibodies, fludarabine, anti-CD52 antibodies (e.g. alemtuzumab), anti-CD45 antibodies, cyclophosphamide, anti-thymocyte globulins, anti-complement C5 antibodies (e.g. eculizumab), anti-a4b7 integrin antibodies (e.g. vedolizumab), anti-IL6 antibodies (e.g. tocilizumab), anti-IL2R antibodies (e.g. basilixumab), anti-CD25 antibodies (e.g. daclizumab), anti-TNFa / TNFa-Fc molecules (e.g. etanercept, adalimumab, infliximab, golimumab or certolizumab pegol) and Vorinostat.

2. A pharmaceutical composition according to claim 1, wherein the antibody or fragment comprises a V_H domain which comprises the HCDR1 sequence of SEQ ID NO:36 or 42.

3. A pharmaceutical composition according to claim 1 or claim 2, wherein the antibody or fragment comprises a V_H domain which comprises the HCDR2 sequence of SEQ ID NO:38 or 44.

4. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_H domain which comprises the HCDR3 sequence of SEQ ID NO:40 or 46.

5. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_H domain comprising an amino acid sequence of SEQ ID NO: 34.

6. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises first and second copies of said V_H domain.

7. A pharmaceutical composition according to claim 6, wherein the antibody or fragment comprises a human gamma 4 constant region.

8. A pharmaceutical composition according to claim 7, wherein the antibody or fragment comprises a heavy chain constant region which is IgG4 PE.

9. A pharmaceutical composition according to claim 8, wherein the antibody or fragment comprises a heavy chain constant region of Seq ID No:128.

10. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_L domain which comprises the LCDR1 sequence of SEQ ID No:50 or 56.

11. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_L domain which comprises the LCDR2 sequence of SEQ ID NO:52 or 58.

12. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_L domain which comprises the LCDR3 sequence of SEQ ID NO:54 or 60.

13. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a V_L domain comprises an amino acid sequence of SEQ ID NO:48.

14. A pharmaceutical composition according to any preceding claim wherein the antibody or fragment comprises first and second copies of said V_L domain.

15. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a kappa light chain.

16. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment comprises a kappa light chain comprising a constant region selected from the group consisting of the kappa light chain constant region amino acid sequences of Seq ID Nos: 136, 138, 140, 142 and 144.

17. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment is a fully human antibody or fragment.

18. A pharmaceutical composition according to any preceding claim, wherein the antibody comprises a heavy chain and a light chain, the heavy chain amino acid sequence consisting

of the sequence of SEQ ID No:62 and the light chain amino acid sequence consisting of the sequence of SEQ ID No:64.

19. A pharmaceutical composition according to any one of claims 1, 6 to 9, or 14 to 17, wherein the antibody or fragment comprises a heavy chain variable region comprising an amino acid sequence consisting of the sequence of SEQ ID No:2, and a light chain variable region comprising an amino acid sequence consisting of the sequence of SEQ ID No:16.

20. A pharmaceutical composition according to any preceding claim, wherein the antibody or fragment competes for binding to said hOX40L epitope with the antibody 02D10, which antibody 02D10 comprises a V_H domain comprising the amino acid sequence consisting of the sequence of SEQ ID No:34 and a V_L domain comprising the amino acid sequence consisting of the sequence of SEQ ID No:48.

21. A pharmaceutical composition according to any preceding claim wherein the antibody or fragment specifically binds to said hOX40L epitope with a Kd of from 1nM to 10pM as determined by SPR.

22. A pharmaceutical composition according to any preceding claim wherein the antibody or fragment specifically binds to rhesus monkey OX40L epitope with a Kd of from 10nM to 100pM as determined by SPR.

23. A pharmaceutical composition according to any preceding claim, formulated for parenteral administration selected from intravenous or sub-cutaneous administration.

24. A kit comprising:

(i) an antibody or fragment thereof as defined in any preceding claim; and

(ii) a further therapeutic agent independently selected from the group consisting of rapamycin (sirolimus), tacrolimus, ciclosporin, corticosteroids (e.g. methylprednisolone), methotrexate, mycophenolate mofetil, anti-CD28 antibodies, anti-IL12/IL-23 antibodies (e.g. ustekinumab), anti-CD20 antibodies (e.g.rituximab), anti-CD30 antibodies (e.g. brentuximab), CTLA4-Fc molecules (e.g. abatacept), CCR5 receptor antagonists (e.g. maraviroc), anti-CD40L antibodies, anti-VLA4 antibodies (e.g. natalizumab), anti-LFA1 antibodies, fludarabine, anti-CD52 antibodies (e.g. alemtuzumab), anti-CD45 antibodies, cyclophosphamide, anti-thymocyte globulins, anti-complement C5 antibodies (e.g. eculizumab), anti-a4b7 integrin antibodies (e.g. vedolizumab), anti-IL6 antibodies (e.g. tocilizumab), anti-IL2R antibodies (e.g. basilixumab), anti-CD25 antibodies (e.g. daclizumab), anti-TNFa / TNFa-Fc molecules (e.g. etanercept, adalimumab, infliximab, golimumab or certolizumab pegol) and Vorinostat.

25. A pharmaceutical composition according to any one of preceding claim, or kit according to claim 24, wherein the pharmaceutical composition or kit comprises a label or instructions for use to treat and/or prevent said disease or condition in a human.

26. A pharmaceutical composition according to claim 25 or a kit according to claim 25, wherein the label or instructions comprise a marketing authorisation number (e.g., an FDA or EMA authorisation number).

27. A kit according to any one of claims 24 to 26, which comprises an IV or injection device that comprises the antibody or fragment thereof.

28. Use of a pharmaceutical composition according to any preceding claim, or a kit according to any of claims 24 to 27, in the manufacture of a medicament for treating and/or preventing a hOX40L-mediated condition or disease selected from an autoimmune disease or condition, a systemic inflammatory disease or condition, or transplant rejection; for example inflammatory bowel disease (IBD), Crohn's disease, rheumatoid arthritis, transplant rejection, allogenic transplant rejection, graft-versus-host disease (GvHD), ulcerative colitis, systemic lupus erythematosus (SLE), diabetes, uveitis, ankylosing spondylitis, contact hypersensitivity, multiple sclerosis and atherosclerosis, in particular GvHD.

29. An antibody or a fragment thereof, that specifically binds to an hOX40L epitope and comprises a heavy chain and a light chain and wherein:
    a. the heavy chain comprises a V_H region having at least 85% identity to the amino acid sequence of SEQ ID No:34; and
    b. the light chain comprises a V_L region having at least 85% identity to the amino acid sequence of SEQ ID No:48,

    in combination with a further therapeutic agent independently selected from the group consisting of rapamycin (sirolimus), tacrolimus, ciclosporin, corticosteroids (e.g. methylprednisolone), methotrexate, mycophenolate mofetil, anti-CD28 antibodies, anti-IL12/IL-23 antibodies (e.g. ustekinumab), anti-CD20 antibodies (e.g.rituximab), anti-CD30 antibodies (e.g. brentuximab), CTLA4-Fc molecules (e.g. abatacept), CCR5 receptor antagonists (e.g. maraviroc), anti-CD40L antibodies, anti-VLA4 antibodies (e.g. natalizumab), anti-LFA1 antibodies, fludarabine, anti-CD52 antibodies (e.g. alemtuzumab), anti-CD45 antibodies, cyclophosphamide, anti-thymocyte globulins, anti-complement C5 antibodies (e.g. eculizumab), anti-a4b7 integrin antibodies (e.g. vedolizumab), anti-IL6 antibodies (e.g. tocilizumab), anti-IL2R antibodies (e.g. basilixumab), anti-CD25 antibodies (e.g. daclizumab),

anti-TNFa / TNFa-Fc molecules (e.g. etanercept, adalimumab, infliximab, golimumab or certolizumab pegol) and Vorinostat, for use in therapy, for example for use in treating or preventing a hOX40L-mediated disease or condition selected from an autoimmune disease or condition, a systemic inflammatory disease or condition, or transplant rejection.

30. An antibody or fragment for the use according to claim 29, wherein the hOX40L-mediated disease is selected from inflammatory bowel disease (IBD), Crohn's disease, rheumatoid arthritis, transplant rejection, allogenic transplant rejection, graft-versus-host disease (GvHD), ulcerative colitis, systemic lupus erythematosus (SLE), diabetes, uveitis, ankylosing spondylitis, contact hypersensitivity, multiple sclerosis and atherosclerosis.

31. An antibody or fragment for the use according to claim 29, wherein the hOX40L-mediated disease is dermatitis.

32. An antibody or fragment for use according to any one of claims 29 to 31, wherein the antibody or fragment is as defined in any one of claims 2 to 20.

33. An antibody or fragment for use according to any one of claims 29 to 32, wherein the antibody or fragment specifically binds to said hOX40L epitope with a Kd of from 1nM to 10pM as determined by SPR.

34. An antibody or fragment for use according to any one of claims 29 to 33, wherein the antibody or fragment specifically binds to rhesus monkey OX40L epitope with a Kd of from 10nM to 100pM as determined by SPR.

35. An antibody or fragment for the use according to any one of claims 29 to 34, wherein the antibody or fragment is to be administered parenterally, for example by intravenous or sub-cutaneous administration.