CLAIMS

WHAT IS CLAIMED IS:

1. An antibody that binds human OX40, wherein the antibody comprises:

(1) a heavy chain variable domain (VH) comprising (a) an HVR-H1 comprising the amino acid sequence of SEQ ID NO:2; (b) an HVR-H2 comprising the amino acid sequence of SEQ ID NO:3; and (c) an HVR-H3 comprising the amino acid sequence of SEQ ID NO:4; and

(2) a light chain variable domain (VL) comprising (d) an HVR-L1 comprising the amino acid sequence of SEQ ID NO:5; (e) an HVR-L2 comprising the amino acid sequence of SEQ ID NO:6; and (f) an HVR-L3 comprising the amino acid sequence of SEQ ID NO:7.

2. The antibody of claim 1, wherein the antibody binds human OX40 with an affinity of less than or equal to about 0.4 nM.

3. The antibody of claim 1 or claim 2, wherein the antibody binds human OX40 and cynomolgus OX40.

4. The antibody of any one of claims 1-3, wherein the antibody is stable after treatment at 40°C for two weeks.

5. The antibody of any one of claims 1-4, wherein the VH sequence has at least 90% sequence identity to the amino acid sequence of SEQ ID NO:56.

6. The antibody of claim 5, wherein the VH sequence has at least 95% identity to the amino acid sequence of SEQ ID NO:56.

7. The antibody of any one of claims 1-6, wherein the VL has at least 90% sequence identity to the amino acid sequence of SEQ ID NO:57.

8. The antibody of claim 7, wherein the VL sequence has at least 95% identity to the amino acid sequence of SEQ ID NO:57.

9. The antibody of any one of claims 1-8, comprising a VH sequence of SEQ ID NO: 56.

10. The antibody of any one of claims 1-9, comprising a VL sequence of SEQ ID NO: 57.

11. The antibody of any one of claims 1-10, further comprising a human IgG1 Fc region.

24. The immunoconjugate of claim 22, wherein the cytotoxic agent is selected from the group consisting of a radioactive isotope, a chemotherapeutic agent, and an antibiotic.

25. A composition comprising the antibody of any one of claims 1-17 and a pharmaceutically acceptable carrier.

26. The composition of claim 25, wherein the composition comprises a buffer, a surfactant, and a saccharide.

27. The composition of claim 25, wherein the composition comprises 10 mg/mL - 100 mg/mL antibody, 0.01% – 0.1% (w/v) polysorbate, 100 mM – 320 mM saccharide, 1 mM - 50 mM histidine buffer, and has a pH of 5.0 – 6.0.

28. The composition of claim 25, wherein the composition comprises 10 mg/mL - 100 mg/mL antibody, 0.01% – 0.1% (w/v) polysorbate, 100 mM – 150 mM saccharide, 1 mM - 25 mM histidine buffer, and has a pH of 5.0 – 6.0.

29. The composition of claim 25, wherein the composition comprises 50 mg/mL - 75 mg/mL antibody, 0.01% – 0.1% (w/v) polysorbate, 110 mM – 130 mM saccharide, 20 mM - 30 mM histidine buffer, and has a pH of 5.0 – 6.0.

30. The composition of claim 25, wherein the composition comprises 10 mg/mL - 100 mg/mL antibody, 0.02% – 0.06% (w/v) polysorbate, 100 mM – 320 mM sucrose, 1 mM - 50 mM histidine buffer, and has a pH of 5.0 – 6.0.

31. The composition of claim 25, wherein the composition comprises 60 mg/mL antibody, 0.03% (w/v) polysorbate, 120 mM sucrose, 20 mM histidine acetate buffer, and has a pH of 5.5.

32. The antibody of any one of claims 1-17 or the composition of any one of claims 25-31 for use as a medicament.

33. The antibody of any one of claims 1-17 or the composition of any one of claims 25-31 for use in treating cancer.

34. The antibody of any one of claims 1-17 or the composition of any one of claims 25-31 for use in enhancing immune function in an individual.

35. Use of the antibody of any one of claims 1-17 in the manufacture of a medicament for treatment of cancer.