WE CLAIM:

1. An antibody that binds human PD-L1 (SEQ ID NO: 1) and human PD-1 (SEQ ID NO: 2) comprising:
   a) a first heavy chain (HC1) comprising a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 3;
   b) a first light chain (LC1) comprising a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 4;
   c) a second heavy chain (HC2) comprising a heavy chain variable region comprising the amino acid sequence of SEQ ID NO: 5; and
   d) a second light chain (LC2) comprising a light chain variable region comprising the amino acid sequence of SEQ ID NO: 8.

2. The antibody of claim 1 comprising:
   a) the HC1 comprising, in order from the N-terminus to the C-terminus, the HCVR comprising the amino acid sequence of SEQ ID NO: 3, the amino acid sequence of SEQ ID NO: 9 in the CH1 domain, the amino acid sequence of SEQ ID NO: 10 in the CH2 domain, and the amino acid sequence of SEQ ID NO: 11 or SEQ ID NO: 12 in the CH3 domain;
   b) the LC1 comprising, in order from the N-terminus to the C-terminus, the LCVR comprising the amino acid sequence of SEQ ID NO: 4 and the amino acid sequence of SEQ ID NO: 14 in the constant region;
   c) the HC2 comprising, in order from the N-terminus to the C-terminus, the HCVR comprising the amino acid sequence of SEQ ID NO: 5, the amino acid sequence of SEQ ID NO: 13 in the CH1 domain, the amino acid sequence of SEQ ID NO: 10 in the CH2 domain, and the amino acid sequence of SEQ ID NO: 12 or the amino acid sequence of SEQ ID NO: 11 in the CH3 domain; and
   d) the LC2 comprising, in order from N-terminus, the LCVR comprising the amino acid sequence of SEQ ID NO: 8 and the amino acid sequence of SEQ ID NO: 15 in the constant region, provided that when the amino acid sequence of SEQ ID NO: 11 is present in the CH3 domain of said HC1, the amino acid sequence of SEQ ID NO: 12 is present in the CH3 domain of said HC2; or when the amino acid sequence of SEQ ID NO: 12 is present in the CH3 domain of said HC1, the

amino acid sequence of SEQ ID NO: 11 is present in the CH3 domain of said HC2.

3. The antibody of Claim 2, wherein said HC1 comprises the amino acid sequence of SEQ ID NO: 11 in the CH3 domain, and wherein said HC2 comprises the HCVR comprising the amino acid sequence of SEQ ID NO: 6 and said HC2 comprises the amino acid sequence of SEQ ID NO: 12 in the CH3 domain.

4. The antibody of Claim 3, wherein said HC1, LC1, HC2, and LC2 comprises the amino acid sequences of SEQ ID NO: 49, SEQ ID NO: 30, SEQ ID NO 31, and SEQ ID NO: 34, respectively.

5. A mammalian cell comprising a DNA molecule comprising a polynucleotide sequence encoding polypeptides having the amino acid sequences of SEQ ID NO: 49, SEQ ID NO: 30, SEQ ID NO: 31, and SEQ ID NO: 34, wherein the cell is capable of expressing the antibody of Claim 4.

6. A mammalian cell comprising a DNA molecule comprising a polynucleotide sequence encoding polypeptides having the amino acid sequences of SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 33, and SEQ ID NO: 34, wherein the cell is capable of expressing the antibody of Claim 4.

7. A process for producing an antibody comprising cultivating the mammalian cell of Claim 5 or 6 under conditions such that the antibody is expressed, and recovering the expressed antibody.

8. A pharmaceutical composition, comprising the antibody of any one of Claims 1-4 and an acceptable carrier, diluent, or excipient.

9. Use of an antibody of any one of Claims 1-4 in the manufacture of a medicament for treating cancer, wherein the cancer is Hodgkin's or non-Hodgkin's lymphomas, melanoma, renal cell cancer, kidney cancer, lung cancer, bladder cancer, gastric and esophageal cancer, colorectal cancer, liver cancer, hepatocellular cancer, cholangiocarcinoma, pancreatic cancer, breast cancer, triple-negative breast cancer, ovarian cancer, endometrial cancer, prostate cancer, small cell lung cancer (SCLC), non-small cell lung cancer (NSCLC), mesothelioma, squamous cancer of head neck cancer (SCCHN), soft tissue sarcoma, or glioblastoma multiforme.

10. The use of Claim 9, wherein the lung cancer is NSCLC, small cell lung cancer, or mesothelioma.

11. The use of Claim 9 or 10, wherein one or more antitumor agents selected from the group consisting of cisplatin, carboplatin, dacarbazine, liposomal doxorubicin, docetaxel, cyclophosphamide and doxorubicin, navelbine, eribulin, paclitaxel, paclitaxel protein-bound particles for injectable suspension, ixabepilone, capecitabine, FOLFOX (leucovorin, fluorouracil, and oxaliplatin), FOLFIRI (leucovorin, fluorouracil, and irinotecan), gemcitabine, topotecan, liposomal irinotecan, pemetrexed, cetuximab, nivolumab, ipilimumab, pidilizumab, pembrolizumab, tremelimumab, urelumab, lirilumab, atezolizumab, epacadostat, and durvalumab is to be further administered simultaneously, separately, or sequentially.

12. The antibody of any one of Claims 1-4 for use in therapy.

13. The antibody of any one of Claims 1-4 for use in the treatment of cancer, wherein the cancer is Hodgkin's or non-Hodgkin's lymphomas, melanoma, renal cell cancer, kidney cancer, lung cancer, bladder cancer, gastric and esophageal cancer, colorectal cancer, liver cancer, hepatocellular cancer, cholangiocarcinoma, pancreatic cancer, breast cancer, triple-negative breast cancer, ovarian cancer, endometrial cancer, prostate cancer, small cell lung cancer (SCLC), non-small cell lung cancer (NSCLC), mesothelioma, squamous cancer of head neck cancer (SCCHN), soft tissue sarcoma, or glioblastoma multiforme.

14. The antibody for use of Claim 13, wherein the cancer is non-small cell lung cancer, small cell lung cancer, or mesothelioma.

15. The antibody of any one of Claims 1-4 for use in simultaneous, separate, or sequential combination with one or more antitumor agents selected from the group consisting of cisplatin, carboplatin, dacarbazine, liposomal doxorubicin, docetaxel, cyclophosphamide and doxorubicin, navelbine, eribulin, paclitaxel, paclitaxel protein-bound particles for injectable suspension, ixabepilone, capecitabine, FOLFOX (leucovorin, fluorouracil, and oxaliplatin), FOLFIRI (leucovorin, fluorouracil, and irinotecan), gemcitabine, topotecan, liposomal irinotecan, pemetrexed, cetuximab, nivolumab, ipilimumab, pidilizumab, pembrolizumab, tremelimumab, urelumab, lirilumab, atezolizumab, epacadostat,

and durvalumab, in the treatment of cancer, wherein the cancer is Hodgkin's or non-Hodgkin's lymphomas, melanoma, renal cell cancer, kidney cancer, lung cancer, bladder cancer, gastric and esophageal cancer, colorectal cancer, liver cancer, hepatocellular cancer, cholangiocarcinoma, pancreatic cancer, breast cancer, triple-negative breast cancer, ovarian cancer, endometrial cancer, prostate cancer, small cell lung cancer (SCLC), non-small cell lung cancer (NSCLC), mesothelioma, squamous cancer of head neck cancer (SCCHN), soft tissue sarcoma, or glioblastoma multiforme.

16. A pharmaceutical composition for use in treating cancer, comprising an effective amount of the antibody of any one of Claims 1-4, wherein the cancer is Hodgkin's or non-Hodgkin's lymphomas, melanoma, renal cell cancer, kidney cancer, lung cancer, bladder cancer, gastric and esophageal cancer, colorectal cancer, liver cancer, hepatocellular cancer, cholangiocarcinoma, pancreatic cancer, breast cancer, triple-negative breast cancer, ovarian cancer, endometrial cancer, prostate cancer, small cell lung cancer (SCLC), non-small cell lung cancer (NSCLC), mesothelioma, squamous cancer of head neck cancer (SCCHN), soft tissue sarcoma, or glioblastoma multiforme.

17. The composition for use of Claim 16, wherein the cancer is NSCLC, small cell lung cancer, or mesothelioma.

18. The composition for use of Claim 16 or 17, wherein one or more antitumor agents selected from the group consisting of cisplatin, carboplatin, dacarbazine, liposomal doxorubicin, docetaxel, cyclophosphamide and doxorubicin, navelbine, eribulin, paclitaxel, paclitaxel protein-bound particles for injectable suspension, ixabepilone, capecitabine, FOLFOX (leucovorin, fluorouracil, and oxaliplatin), FOLFIRI (leucovorin, fluorouracil, and irinotecan), gemcitabine, topotecan, liposomal irinotecan, pemetrexed, cetuximab, nivolumab, ipilimumab, pidilizumab, pembrolizumab, tremelimumab, urelumab, lirilumab, atezolizumab, epacadostat, and durvalumab is to be administered simultaneously, separately, or in sequential combination.