[006] The present disclosure provides antibodies and antigen-binding fragments thereof that bind PD-L1. The antibodies of the present disclosure are useful, *inter alia*, for targeting cells expressing PD-L1 such as cancer cells or virally-infected cells, and for modulating PD-L1 activity. In certain embodiments, the antibodies of the disclosure are useful for inhibiting or neutralizing PD-L1 activity and for stimulating T cell activation, *e.g.*, under circumstances where T cell-mediated killing is beneficial or desirable. The anti-PD-L1 antibodies of the disclosure, or antigen-binding portions thereof, may be included as part of a multi-specific antigen-binding molecule, for example, to modulate the immune response and/or to target the antibodies to a specific cell type, such as a tumor cell, or a virally infected cell. The antibodies are useful in treating a disease or disorder such as cancer and viral infection.

[006a] In a first aspect, there is provided use of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein or a pharmaceutical composition comprising the isolated antibody or antigen-binding fragment thereof and a carrier, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90, in the manufacture of a medicament for inhibiting the growth of a tumor or tumor cell in a subject.

[006b] In a second aspect, there is provided use of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein or a pharmaceutical composition comprising the isolated antibody or antigen-binding fragment thereof and a carrier, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90, in the manufacture of a medicament for treating a chronic viral infection in a subject.

[006c] In a third aspect, there is provided use of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein or a pharmaceutical composition comprising the isolated antibody or antigen-binding fragment thereof and a carrier, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90, in the manufacture of a medicament for inhibiting a T-regulatory (Treg) cell in a subject having a tumor or a chronic viral infection.

What is claimed is:

1. Use of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein or a pharmaceutical composition comprising the isolated antibody or antigen-binding fragment thereof and a carrier, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90, in the manufacture of a medicament for inhibiting the growth of a tumor or tumor cell in a subject.

2. The use according to claim 1, wherein the tumor comprises renal cell carcinoma, brain cancer, squamous cell carcinoma of head and neck, gastric cancer, kidney cancer, breast cancer, ovarian cancer, prostate cancer, non-small-cell lung cancer, colorectal cancer, multiple myeloma or melanoma.

3. Use of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein or a pharmaceutical composition comprising the isolated antibody or antigen-binding fragment thereof and a carrier, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90, in the manufacture of a medicament for treating a chronic viral infection in a subject.

4. The use according to claim 3, wherein the chronic viral infection comprises HIV, HBV, HCV, HPV, LCMV, SIV, or a combination thereof.

5. The use according to any one of claims 1-4, wherein the antibody or antigen-binding fragment thereof or the pharmaceutical composition is to be administered to the subject in combination with a second therapeutic agent or therapy.

6. The use of claim 5, wherein the second therapeutic agent or therapy comprises a NSAID, a corticosteroid, an antibody to a T-cell co-inhibitor, an antibody to a tumor specific antigen, an antibody to PD-1, an IDO inhibitor, an Ang2 inhibitor, a cancer vaccine, an EGFR inhibitor, a TGFβ inhibitor, a dietary supplement such as an antioxidant, a VEGF antagonist such as an anti-VEGF antibody, a small molecule kinase inhibitor of VEGF receptor or a VEGF-inhibiting fusion protein, surgery, radiation, a chemotherapeutic agent, a cytotoxic agent, or a combination thereof.

7. The use according to any one of claims 1-6, wherein the antibody or antigen-binding fragment thereof or the pharmaceutical composition is to be administered to the subject subcutaneously, intravenously, intradermally, intraperitoneally, orally, intramuscularly or intracranially.

8. The use according to any one of claims 1-7, wherein the antibody or antigen-binding fragment or the pharmaceutical composition is to be administered to the subject at a dose of 0.1 mg/kg of body weight to 60 mg/kg of body weight of the subject.

9. An isolated polynucleotide molecule comprising a polynucleotide sequence that encodes a HCVR and a LCVR of an isolated antibody or antigen-binding fragment thereof that binds to human programmed death-ligand 1 (PD-L1) protein, wherein the isolated antibody or antigen-binding fragment thereof comprises a heavy chain variable region (HCVR) having an amino acid sequence of SEQ ID NO: 82, and a light chain variable region (LCVR) having an amino acid sequence of SEQ ID NO: 90.

10. A vector comprising the polynucleotide sequence of claim 9.

11. A host cell expressing the vector of claim 10.

12. A method of producing an anti-PD-L1 antibody or antigen-binding fragment thereof, comprising growing the host cell of claim 13 under conditions permitting production of the antibody or antigen-binding fragment thereof, and recovering the antibody or antigen-binding fragment thereof so produced.

13. The method of claim 12, wherein the host cell is a CHO cell.

14. The method of claim 12 or 13, further comprising formulating the antibody or antigen-binding fragment thereof as a pharmaceutical composition comprising an acceptable carrier.