CLAIMS:

1. An isolated antibody that specifically binds to human TIM-3, the antibody comprising a heavy chain variable region comprising complementarity determining regions CDRH1, CDRH2 and CDRH3 and a light chain variable region comprising complementarity determining regions CDRL1, CDRL2 and CDRL3, wherein:

(a) CDRH1 comprises the amino acid sequence of SEQ ID NO: 1;

(b) CDRH2 comprises the amino acid sequence of SEQ ID NO: 2;

(c) CDRH3 comprises the amino acid sequence of SEQ ID NO: 3;

(d) CDRL1 comprises the amino acid sequence of any one of SEQ ID NOs: 13 to 16;

(e) CDRL2 comprises the amino acid sequence of any one of SEQ ID NOs: 17 to 21; and

(f) CDRL3 comprises the amino acid sequence of SEQ ID NO: 22 or 23 ; and

wherein the antibody does not comprise the CDRH1, CDRH2, CDRH3, CDRL1, CDRL2, and CDRL3 amino acid sequences set forth in SEQ ID NOs: 1, 2, 3, 14, 21, and 22; respectively.

2. The isolated antibody of claim 1, wherein CDRL1, CDRL2 and CDRL3 comprise the CDRL1, CDRL2 and CDRL3 amino acid sequences, respectively, set forth in SEQ ID NOs: 13, 17, and 22; 14, 17, and 22; 15, 18, and 22; 14, 19, and 22; 14, 20, and 22; 16, 20, and 22; or 14, 17, and 23.

3. The isolated antibody of claim 1, wherein the antibody is internalized upon binding to cells expressing human TIM-3.

4. The isolated antibody of claim 1, wherein the heavy chain variable region comprises an amino acid sequence selected from any one of SEQ ID NOs: 24-26, and the light chain variable region comprises an amino acid sequence selected from any one of SEQ ID NOs: 36-41, 44, and 47.

5. The isolated antibody of claim 4, wherein the heavy chain variable region and the light chain variable region, respectively, comprise the amino acid sequences set forth in SEQ ID NOs: 24 and 36; 24 and 38; 24 and 41; 24 and 47; 25 and 37; 25 and 39; 25 and 40; 25 and 41; 25 and

44; 25 and 47; 26 and 41; or 26 and 47.

6. The isolated antibody of claim 1, wherein the antibody comprises a heavy chain constant region, wherein the heavy chain constant region:

(a) is selected from the group consisting of human IgG1, IgG2, IgG3, IgG4, IgA1, and IgA2;

(b) is an IgG1 heavy chain constant region;

(c) is an IgG1 heavy chain constant region comprising an N297A mutation, numbered according to the EU numbering system;

(d) comprises the amino acid sequence of SEQ ID NO: 72;

(e) is an IgG1 heavy chain constant region comprising an N297Q mutation, numbered according to the EU numbering system;

(f) is a non-fucosylated IgG1;

(g) is an IgG4 heavy chain constant region;

(h) is an IgG4 heavy chain constant region comprising an S228P mutation, numbered according to the EU numbering system; or

(i) comprises the amino acid sequence of SEQ ID NO: 74; or

(j) is a variant of a wild type human IgG heavy chain constant region, wherein the variant human IgG heavy chain constant region binds to a human Fc gamma receptor with lower affinity than the wild type human IgG heavy chain constant region binds to the human Fc gamma receptor.

7. The isolated antibody of claim 1, wherein the antibody comprises a light chain constant region, wherein the light chain constant region:

(a) is selected from the group consisting of human kappa and human lambda;

(b) is a human kappa light chain constant region; or

(c) comprises the amino acid sequence of SEQ ID NO: 76.

8. The isolated antibody of any one of claims 1-7, wherein the antibody specifically binds to a variant TIM-3 protein having the amino acid sequence of SEQ ID NO: 101 with a lower affinity than to a wild-type TIM-3 protein having the amino acid sequence of SEQ ID NO: 79, or wherein the antibody does not specifically bind to a variant TIM-3 protein having the amino acid sequence

of SEQ ID NO: 101.

9. The isolated antibody of any one of claims 1-7, wherein the antibody binds to residue 40 of SEQ ID NO: 79.

10. The isolated antibody of any one of claims 1-7, wherein the antibody binds to an epitope located within a region of human TIM-3 consisting of the amino acid sequence of any one of SEQ ID NOs: 93-100.

11. The isolated antibody of any one of claims 1-7, wherein the antibody has at least one of the following features:

(a) is a human antibody;

(b) is antagonistic to human TIM-3;

(c) deactivates, reduces, or inhibits an activity of human TIM-3;

(d) inhibits binding of human TIM-3 to phosphatidylserine;

(e) induces IFNγ production by peripheral blood mononuclear cells (PBMCs) stimulated with staphylococcal enterotoxin A (SEA);

(f) induces IFNγ or TNFα production by tumor infiltrating lymphocytes (TILs) stimulated with anti-CD3 and anti-CD28 antibodies; and

(g) is internalized upon binding to cells expressing human TIM-3.

12. The isolated antibody of any one of claims 1-7 conjugated to a cytotoxic agent, cytostatic agent, toxin, radionuclide, or detectable label.

13. Use of the antibody of any one of claims 1-7 and a pharmaceutically acceptable carrier or excipient in the manufacture of a pharmaceutical composition for the treatment of cancer or infectious disease in a subject in need thereof.

14. An isolated polynucleotide encoding:

(a) a heavy chain variable region or a light chain variable region of the antibody of any one of claims 1-7;

(b) a heavy chain variable region and a light chain variable region of the antibody of any one of claims 1-7;

(c) a heavy chain or a light chain of the antibody of any one of claims 1-7; or

(d) a heavy chain and a light chain of the antibody of any one of claims 1-7.

15. A vector comprising the polynucleotide of claim 14.

16. A recombinant host cell comprising:

(a) an isolated polynucleotide encoding:

(i) a heavy chain variable region or a light chain variable region of the antibody of any one of claims 1-7;

(ii) a heavy chain variable region and a light chain variable region of the antibody of any one of claims 1-7;

(iii) a heavy chain or a light chain of the antibody of any one of claims 1-7; or

(iv) a heavy chain and a light chain of the antibody of any one of claims 1-7;

(b) a vector comprising said polynucleotide;

(c) a first polynucleotide encoding a heavy chain variable region or a heavy chain of the antibody of any one of claims 1-7, and a second polynucleotide encoding a light chain variable region or a light chain of the antibody of any one of claims 1-7; or

(d) a first vector comprising a first polynucleotide encoding a heavy chain variable region or a heavy chain of the antibody of any one of claims 1-7, and a second vector comprising a second polynucleotide encoding a light chain variable region or light chain of the antibody of any one of claims 1-7.

17. A method of producing an antibody that binds to human TIM-3, the method comprising culturing the host cell of claim 16 so that the polynucleotide is expressed and the antibody is produced.

18. The use of claim 13, wherein the pharmaceutical composition increases T cell activation in response to an antigen in the subject.

19. Use of the antibody of any one of claims 1-7, in the manufacture of a medicament for the treatment of cancer or infectious disease in a subject in need thereof.

20. The use of claim 13, wherein:

(a) the pharmaceutical composition is to be administered subcutaneously, intravenously, or intratumorally; or

(b) the pharmaceutical composition is to be administered in combination with an additional therapeutic agent, wherein the additional therapeutic agent:

(i) is a chemotherapeutic, a radiotherapeutic, or a checkpoint targeting agent;

(ii) is a checkpoint targeting agent selected from the group consisting of an antagonist anti-PD-1 antibody, an antagonist anti-PD-L1 antibody, an antagonist anti-PD-L2 antibody, an antagonist anti-CTLA-4 antibody, an antagonist anti-TIM-3 antibody, an antagonist anti-LAG-3 antibody, an antagonist anti-CEACAM1 antibody, an agonist anti-GITR antibody, and an agonist anti-OX40 antibody;

(iii) is an anti-PD-1 antibody selected from the group consisting of pembrolizumab or nivolumab;

(iv) is an inhibitor of indoleamine-2,3-dioxygenase (IDO);

(v) is an inhibitor of IDO selected from the group consisting of epacadostat, F001287, indoximod, and NLG919;

(vi) is a vaccine;

(vii) is a vaccine comprising a heat shock protein peptide complex (HSPPC) comprising a heat shock protein complexed with an antigenic peptide;

(viii) is a vaccine comprising an HSPPC comprising hsc70 complexed with a tumor-associated antigenic peptide; or

(ix) is a vaccine comprising an HSPPC comprising gp96 complexed with a tumor-associated antigenic peptide, wherein the HSPPC is derived from a tumor obtained from a subject.

21. The antibody of any one of claims 1-7, for use in therapy.