**WHAT IS CLAIMED IS:**

1. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising the following six CDR sequences:

   (a) a CDR-H3 having the sequence A-R-D-G-V-L-$X_1$-L-N-K-R-S-F-D-I, wherein $X_1$ is A or T (SEQ ID NO: 128);

   (b) a CDR-H2 having the sequence S-I-Y-Y-S-G-$X_2$-T-Y-Y-N-P-S-L-K-S, wherein $X_2$ is S, Q or G (SEQ ID NO: 129);

   (c) a CDR-H1 having the sequence G-S-I-$X_3$-S-G-$X_4$-Y-Y-W-G, wherein $X_3$ is E or A, and $X_4$ is L, V or S (SEQ ID NO: 130);

   (d) a CDR-L3 having the sequence QQHTVRPPLT (SEQ ID NO: 64);

   (e) a CDR-L2 having the sequence GASSRAT (SEQ ID NO: 68); and

   (f) a CDR-L1 having the sequence RASQSVSSSYLA (SEQ ID NO: 71).

2. The ABP of claim 1, wherein the ABP comprises:

   (a) a CDR-H3 of SEQ ID NO: 32, a CDR-H2 of SEQ ID NO: 40, a CDR-H1 of SEQ ID NO: 54, a CDR-L3 of SEQ ID NO: 64, a CDR-L2 of SEQ ID NO: 68, and a CDR-L1 of SEQ ID NO: 71;

   (b) a CDR-H3 of SEQ ID NO: 31, a CDR-H2 of SEQ ID NO: 40, a CDR-H1 of SEQ ID NO: 54, a CDR-L3 of SEQ ID NO: 64, a CDR-L2 of SEQ ID NO: 68, and a CDR-L1 of SEQ ID NO: 71;

   (c) a CDR-H3 of SEQ ID NO: 31, a CDR-H2 of SEQ ID NO: 39, a CDR-H1 of SEQ ID NO: 51, a CDR-L3 of SEQ ID NO: 64, a CDR-L2 of SEQ ID NO: 68, and a CDR-L1 of SEQ ID NO: 71;

   (d) a CDR-H3 of SEQ ID NO: 31, a CDR-H2 of SEQ ID NO: 40, a CDR-H1 of SEQ ID NO: 52, a CDR-L3 of SEQ ID NO: 64, a CDR-L2 of SEQ ID NO: 68, and a CDR-L1 of SEQ ID NO: 71; or

   (e) a CDR-H3 of SEQ ID NO: 31, a CDR-H2 of SEQ ID NO: 41, a CDR-H1 of SEQ ID NO: 53, a CDR-L3 of SEQ ID NO: 64, a CDR-L2 of SEQ ID NO: 68, and a CDR-L1 of SEQ ID NO: 71.

3. The ABP of claim 2, wherein:

   (a) the ABP of claim 2(a) comprises a $V_H$ sequence of SEQ ID NO: 13 and a $V_L$ sequence of SEQ ID NO: 26;

(b) the ABP of claim 2(b) comprises a $V_H$ sequence of SEQ ID NO: 12 and a $V_L$ sequence of SEQ ID NO: 26;

(c) the ABP of claim 2(a) comprises a $V_H$ sequence of SEQ ID NO: 14 and a $V_L$ sequence of SEQ ID NO: 26;

(d) the ABP of claim 2(a) comprises a $V_H$ sequence of SEQ ID NO: 15 and a $V_L$ sequence of SEQ ID NO: 26;

(e) the ABP of claim 2(c) comprises a $V_H$ sequence of SEQ ID NO: 9 and a $V_L$ sequence of SEQ ID NO: 26;

(f) the ABP of claim 2(d) comprises a $V_H$ sequence of SEQ ID NO: 10 and a $V_L$ sequence of SEQ ID NO: 26; or

(g) the ABP of claim 2(e) comprises a $V_H$ sequence of SEQ ID NO: 11 and a $V_L$ sequence of SEQ ID NO: 26.

4. The ABP of claim 3, wherein:

(a) the ABP of claim 3(a) comprises (i) a heavy chain of SEQ ID NO: 99 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 100 and a light chain of SEQ ID NO: 92;

(b) the ABP of claim 3(b) comprises (i) a heavy chain of SEQ ID NO: 97 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 98 and a light chain of SEQ ID NO: 92;

(c) the ABP of claim 3(c) comprises (i) a heavy chain of SEQ ID NO: 101 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 102 and a light chain of SEQ ID NO: 92;

(d) the ABP of claim 3(d) comprises (i) a heavy chain of SEQ ID NO: 103 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 104 and a light chain of SEQ ID NO: 92;

(e) the ABP of claim 3(e) comprises (i) a heavy chain of SEQ ID NO: 90 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 91 and a light chain of SEQ ID NO: 92;

(f) the ABP of claim 3(f) comprises (i) a heavy chain of SEQ ID NO: 93 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 94 and a light chain of SEQ ID NO: 92; or

(g) the ABP of claim 3(g) comprises (i) a heavy chain of SEQ ID NO: 95 and a light chain of SEQ ID NO: 92; or (ii) a heavy chain of SEQ ID NO: 96 and a light chain of SEQ ID NO: 92.

5. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising the following six CDR sequences:

(a) a CDR-H3 having the sequence A-R-D-A-N-Y-Y-G-$X_1$-A-W-A-F-D-P, wherein $X_1$ is S or G (SEQ ID NO: 131);

(b) a CDR-H2 having the sequence S-I-Y-Y-S-G-$X_2$-T-F-Y-N-P-S-L-K-$X_3$, wherein $X_2$ is S or A, and $X_3$ is S or G (SEQ ID NO: 132);

(c) a CDR-H1 having the sequence G-S-I-$X_4$-S-$X_5$-$X_6$-$X_7$-Y-W-G, wherein $X_4$ is S or T, $X_5$ is S or T, $X_6$ is S or K, and $X_7$ is H or Y (SEQ ID NO: 133);

(d) a CDR-L3 having the sequence QQHFNLPT (SEQ ID NO: 63);

(e) a CDR-L2 having the sequence DASNRAT (SEQ ID NO: 67); and

(f) a CDR-L1 having the sequence RASQSVSSYLA (SEQ ID NO: 70).

6. The ABP of claim 5, wherein the ABP comprises:

(a) a CDR-H3 of SEQ ID NO: 29, a CDR-H2 of SEQ ID NO: 37, a CDR-H1 of SEQ ID NO: 49, a CDR-L3 of SEQ ID NO: 63, a CDR-L2 of SEQ ID NO: 67, and a CDR-L1 of SEQ ID NO: 70;

(b) a CDR-H3 of SEQ ID NO: 30, a CDR-H2 of SEQ ID NO: 37, a CDR-H1 of SEQ ID NO: 50, a CDR-L3 of SEQ ID NO: 63, a CDR-L2 of SEQ ID NO: 67, and a CDR-L1 of SEQ ID NO: 70;

(c) a CDR-H3 of SEQ ID NO: 29, a CDR-H2 of SEQ ID NO: 38, a CDR-H1 of SEQ ID NO: 50, a CDR-L3 of SEQ ID NO: 63, a CDR-L2 of SEQ ID NO: 67, and a CDR-L1 of SEQ ID NO: 70;

(d) a CDR-H3 of SEQ ID NO: 29, a CDR-H2 of SEQ ID NO: 36, a CDR-H1 of SEQ ID NO: 48, a CDR-L3 of SEQ ID NO: 63, a CDR-L2 of SEQ ID NO: 67, and a CDR-L1 of SEQ ID NO: 70; or

(e) a CDR-H3 of SEQ ID NO: 29, a CDR-H2 of SEQ ID NO: 37, a CDR-H1 of SEQ ID NO: 50, a CDR-L3 of SEQ ID NO: 63, a CDR-L2 of SEQ ID NO: 67, and a CDR-L1 of SEQ ID NO: 70.

7. The ABP of claim 6, wherein:

(a) the ABP of claim 6(a) comprises a $V_H$ sequence of SEQ ID NO: 5 and a $V_L$ sequence of SEQ ID NO: 25;

(b) the ABP of claim 6(b) comprises a $V_H$ sequence of SEQ ID NO: 7 and a $V_L$ sequence of SEQ ID NO: 25;

(c) the ABP of claim 6(c) comprises a $V_H$ sequence of SEQ ID NO: 8 and a $V_L$ sequence of SEQ ID NO: 25;

(d) the ABP of claim 6(d) comprises a $V_H$ sequence of SEQ ID NO: 4 and a $V_L$ sequence of SEQ ID NO: 25; or

(e) the ABP of claim 6(e) comprises a $V_H$ sequence of SEQ ID NO: 6 and a $V_L$ sequence of SEQ ID NO: 25.

8. The ABP of claim 7, wherein:

(a) the ABP of claim 7(a) comprises (i) a heavy chain of SEQ ID NO: 82 and a light chain of SEQ ID NO: 81; or (ii) a heavy chain of SEQ ID NO: 83 and a light chain of SEQ ID NO: 81;

(b) the ABP of claim 7(b) comprises (i) a heavy chain of SEQ ID NO: 86 and a light chain of SEQ ID NO: 81; or (ii) a heavy chain of SEQ ID NO: 87 and a light chain of SEQ ID NO: 81;

(c) the ABP of claim 7(c) comprises (i) a heavy chain of SEQ ID NO: 88 and a light chain of SEQ ID NO: 81; or (ii) a heavy chain of SEQ ID NO: 89 and a light chain of SEQ ID NO: 81;

(d) the ABP of claim 7(d) comprises (i) a heavy chain of SEQ ID NO: 79 and a light chain of SEQ ID NO: 81; or (ii) a heavy chain of SEQ ID NO: 80 and a light chain of SEQ ID NO: 81; or

(e) the ABP of claim 7(e) comprises (i) a heavy chain of SEQ ID NO: 84 and a light chain of SEQ ID NO: 81; or (ii) a heavy chain of SEQ ID NO: 85 and a light chain of SEQ ID NO: 81.

9. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising the following six CDR sequences:

(a) a CDR-H3 having the sequence A-R-G-G-R-T-T-W-I-G-A-$X_1$-D-I, wherein $X_1$ is F or L (SEQ ID NO: 134);

(b) a CDR-H2 having the sequence I-I-N-P-S-$X_2$-G-L-T-S-Y-A-$X_3$-K-F-Q-G, wherein $X_2$ is L or I, and $X_3$ is Q or R (SEQ ID NO: 135);

(c) a CDR-H1 having the sequence Y-T-F-$X_4$-$X_5$-Y-Y-$X_6$-H, wherein $X_4$ is G, P or R, $X_5$ is N, A or E, and $X_6$ is M or I (SEQ ID NO: 136);

(d) a CDR-L3 having the sequence QQYVVWPPLT (SEQ ID NO:65);

(e) a CDR-L2 having the sequence GASTRAT (SEQ ID NO:69); and

(f) a CDR-L1 having the sequence RASQSVSSNLA (SEQ ID NO:72).

10. The ABP of claim 9, wherein the ABP comprises:

(a) a CDR-H3 of SEQ ID NO: 33, a CDR-H2 of SEQ ID NO: 43, a CDR-H1 of SEQ ID NO: 60, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72;

(b) a CDR-H3 of SEQ ID NO: 34, a CDR-H2 of SEQ ID NO: 43, a CDR-H1 of SEQ ID NO: 60, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72;

(c) a CDR-H3 of SEQ ID NO: 33, a CDR-H2 of SEQ ID NO: 44, a CDR-H1 of SEQ ID NO: 59, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72;

(d) a CDR-H3 of SEQ ID NO: 33, a CDR-H2 of SEQ ID NO: 42, a CDR-H1 of SEQ ID NO: 58, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72;

(e) a CDR-H3 of SEQ ID NO: 33, a CDR-H2 of SEQ ID NO: 42, a CDR-H1 of SEQ ID NO: 59, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72; or

(f) a CDR-H3 of SEQ ID NO: 34, a CDR-H2 of SEQ ID NO: 44, a CDR-H1 of SEQ ID NO: 61, a CDR-L3 of SEQ ID NO: 65, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72.

11. The ABP of claim 10, wherein:

(a) the ABP of claim 10(a) comprises a $V_H$ sequence of SEQ ID NO: 18 and a $V_L$ sequence of SEQ ID NO: 27;

(b) the ABP of claim 10(b) comprises a $V_H$ sequence of SEQ ID NO: 19 and a $V_L$ sequence of SEQ ID NO: 27;

(c) the ABP of claim 10(c) comprises a $V_H$ sequence of SEQ ID NO: 21 and a $V_L$ sequence of SEQ ID NO: 27;

(d) the ABP of claim 10(d) comprises a $V_H$ sequence of SEQ ID NO: 16 and a $V_L$ sequence of SEQ ID NO: 27;

(e) the ABP of claim 10(e) comprises a $V_H$ sequence of SEQ ID NO: 17 and a $V_L$ sequence of SEQ ID NO: 27; or

(f) the ABP of claim 10(f) comprises a $V_H$ sequence of SEQ ID NO: 20 and a $V_L$ sequence of SEQ ID NO: 27.

12. The ABP of claim 11, wherein:

(a) the ABP of claim 11(a) comprises (i) a heavy chain of SEQ ID NO: 110 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 111 and a light chain of SEQ ID NO: 107;

(b) the ABP of claim 11(b) comprises (i) a heavy chain of SEQ ID NO: 112 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 113 and a light chain of SEQ ID NO: 107;

(c) the ABP of claim 11(c) comprises (i) a heavy chain of SEQ ID NO: 116 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 117 and a light chain of SEQ ID NO: 107;

(d) the ABP of claim 11(d) comprises (i) a heavy chain of SEQ ID NO: 105 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 106 and a light chain of SEQ ID NO: 107;

(e) the ABP of claim 11(e) comprises (i) a heavy chain of SEQ ID NO: 108 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 109 and a light chain of SEQ ID NO: 107; or

(f) the ABP of claim 11(f) comprises (i) a heavy chain of SEQ ID NO: 114 and a light chain of SEQ ID NO: 107; or (ii) a heavy chain of SEQ ID NO: 115 and a light chain of SEQ ID NO: 107.

13. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising the following six CDR sequences:

(a) a CDR-H3 having the sequence ARLHVSGSYYPAYLDY (SEQ ID NO: 35);

(b) a CDR-H2 having the sequence $X_1$-I-N-P-S-M-G-A-T-S-Y-$X_2$-Q-K-F-$X_3$-G, wherein $X_1$ is V or I, $X_2$ is A or T, and $X_3$ is Q or R (SEQ ID NO: 137);

(c) a CDR-H1 having the sequence YTFTSHYMG (SEQ ID NO: 62);

(d) a CDR-L3 having the sequence QQYIVFPWT (SEQ ID NO: 66);

(e) a CDR-L2 having the sequence GASTRAT (SEQ ID NO: 69); and

(f) a CDR-L1 having the sequence RASQSVSSNLA, (SEQ ID NO: 72).

14. The ABP of claim 13, wherein the ABP comprises:

(a) a CDR-H3 of SEQ ID NO: 35, a CDR-H2 of SEQ ID NO: 46, a CDR-H1 of SEQ ID NO: 62, a CDR-L3 of SEQ ID NO: 66, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72;

(b) a CDR-H3 of SEQ ID NO: 35, a CDR-H2 of SEQ ID NO: 47, a CDR-H1 of SEQ ID NO: 62, a CDR-L3 of SEQ ID NO: 66, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72; or

(c) a CDR-H3 of SEQ ID NO: 35, a CDR-H2 of SEQ ID NO: 45, a CDR-H1 of SEQ ID NO: 62, a CDR-L3 of SEQ ID NO: 66, a CDR-L2 of SEQ ID NO: 69, and a CDR-L1 of SEQ ID NO: 72.

15. The ABP of claim 14, wherein:

(a) the ABP of claim 14(a) comprises a $V_H$ sequence of SEQ ID NO: 23 and a $V_L$ sequence of SEQ ID NO: 28;

(b) the ABP of claim 14(b) comprises a $V_H$ sequence of SEQ ID NO: 24 and a $V_L$ sequence of SEQ ID NO: 28; or

(c) the ABP of claim 14(c) comprises a $V_H$ sequence of SEQ ID NO: 22 and a $V_L$ sequence of SEQ ID NO: 28.

16. The ABP of claim 15, wherein:

(a) the ABP of claim 15(a) comprises (i) a heavy chain of SEQ ID NO: 121 and a light chain of SEQ ID NO: 120; or (ii) a heavy chain of SEQ ID NO: 122 and a light chain of SEQ ID NO: 120;

(b) the ABP of claim 15(b) comprises (i) a heavy chain of SEQ ID NO: 123 and a light chain of SEQ ID NO: 120; or (ii) a heavy chain of SEQ ID NO: 124 and a light chain of SEQ ID NO: 120; or

(c) the ABP of claim 15(c) comprises (i) a heavy chain of SEQ ID NO: 118 and a light chain of SEQ ID NO: 120; or (ii) a heavy chain of SEQ ID NO: 119 and a light chain of SEQ ID NO: 120.

17. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising:

(a) a CDR-H3 having at least about 80% identity to a CDR-H3 of a $V_H$ region selected from SEQ ID NOs: 4-24;

(b) a CDR-H2 having at least about 80% identity to a CDR-H2 of a $V_H$ region selected from SEQ ID NOs: 4-24;

(c) a CDR-H1 having at least about 80% identity to a CDR-H1 of a $V_H$ region selected from SEQ ID NOs: 4-24;

(d) a CDR-L3 having at least about 80% identity to a CDR-L3 of a $V_L$ region selected from SEQ ID NOs: 25-28;

(e) a CDR-L2 having at least about 80% identity to a CDR-L2 of a $V_L$ region selected from SEQ ID NOs: 25-28; and

(f) a CDR-L1 having at least about 80% identity to a CDR-L1 of a $V_L$ region selected from SEQ ID NOs: 25-28.

18. The ABP of claim 17, wherein the CDR-H3, CDR-H2, CDR-H1, CDR-L3, CDR-L2, and CDR-L1 are each identified according to a numbering scheme selected from the Kabat numbering scheme, the Chothia numbering scheme, or the IMGT numbering scheme.

19. The ABP of any one of claims 17-18, wherein the CDR-H1 is identified as defined by both the Chothia and Kabat numbering schemes, inclusive of the boundaries of both numbering schemes.

20. The ABP of any one of claims 17-19, wherein:

(a) the CDR-H3 comprises a CDR-H3 selected from SEQ ID NOs: 29-35, or a variant thereof having 1, 2, or 3 amino acid substitutions;

(b) the CDR-H2 comprises a CDR-H3 selected from SEQ ID NOs: 36-47, or a variant thereof having 1, 2, or 3 amino acid substitutions;

(c) the CDR-H1 comprises a CDR-H1 selected from SEQ ID NOs: 48-54 or 58-62, or a variant thereof having 1 or 2 amino acid substitutions;

(d) the CDR-L3 comprises a CDR-L3 selected from SEQ ID NOs: 63-66, or a variant thereof having 1 or 2 amino acid substitutions;

(e) the CDR-L2 comprises a CDR-L2 selected from SEQ ID NOs: 67-69, or a variant thereof having 1 amino acid substitution; and

(f) the CDR-L1 comprises a CDR-L1 selected from SEQ ID NOs: 70-72, or a variant thereof having 1 or 2 amino acid substitutions.

21. An isolated antigen binding protein (ABP) that specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1), comprising:

    (a) a $V_H$ region having at least about 90% identity to a $V_H$ region selected from SEQ ID NOs: 4-24; and

    (b) a $V_L$ region having at least about 90% identity to a $V_L$ region selected from SEQ ID NOs: 25-28.

22. The ABP of claim 21, wherein:

    (a) the a $V_H$ region comprises a $V_H$ region selected from SEQ ID NOs: 4-24, or a variant thereof having 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 12 amino acid substitutions; and

    (b) the a $V_L$ region comprises a $V_L$ region selected from SEQ ID NOs: 25-28, or a variant thereof having 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10 amino acid substitutions.

23. The ABP of any one of claims 20 or 22, wherein the amino acid substitutions are conservative amino acid substitutions.

24. The ABP of any one of claims 1-23, wherein the ABP:

    (a) competes for binding to TIGIT with an antibody selected from MAB1, MAB2, MAB3, MAB4, MAB5, MAB6, MAB7, MAB8, MAB9, MAB10, MAB11, MAB12, MAB13, MAB14, MAB15, MAB16, MAB17, MAB18, MAB19, MAB20, or MAB21, each as provided in Table 5 of this disclosure;

    (b) inhibits binding of CD155 to TIGIT;

    (c) inhibits binding of CD112 to TIGIT;

    (d) inhibits association of CD226 with TIGIT;

    (e) activates an effector T cell or a natural killer (NK) cell;

    (f) decreases the number of regulatory T cells in a tissue or in circulation;

    (g) inhibits the suppression of an effector T cell by a regulatory T cell;

    (h) does not bind specifically to any of PVRL1, PVRL2, PVRL3, or PVRL4; or

    (i) is capable of any combination of (a)- (h).

25. The ABP of any one of claims 1-24, wherein the ABP (a) specifically binds cynomolgus monkey TIGIT (cTIGIT; SEQ ID NO: 2); (b) binds murine TIGIT (mTIGIT; SEQ ID NO: 3) with an affinity lower (as indicated by higher KD) than the affinity of the ABP for hTIGIT, or does not bind mTIGIT; or (c) is capable of any combination of (a) - (b).

26. The ABP of any one of claims 1-25, wherein the ABP: (a) specifically binds cTIGIT (SEQ ID NO: 2); (b) binds mTIGIT (SEQ ID NO: 3) with an affinity lower (as indicated by higher $K_D$) than the affinity of the ABP for hTIGIT and cTIGIT; and (c) inhibits binding of CD155 to TIGIT.

27. An ABP that competes for binding to TIGIT with an ABP of any one of claims 1-26, wherein the ABP: (a) specifically binds cTIGIT (SEQ ID NO: 2); (b) binds mTIGIT (SEQ ID NO: 3) with an affinity lower (as indicated by higher $K_D$) than the affinity of the ABP for hTIGIT and cTIGIT; and (c) inhibits binding of CD155 to TIGIT.

28. The ABP of any one of claims 1-27, wherein the ABP comprises an antibody.

29. The ABP of claim 28, wherein the antibody is a monoclonal antibody.

30. The ABP of any one of claims 28-29, wherein the antibody is selected from a human antibody, a humanized antibody or a chimeric antibody.

31. The ABP of any one of claims 1-30, wherein the ABP is multispecific.

32. The ABP of claim 31, wherein the ABP binds more than one antigen or more than one epitope on a single antigen.

33. The ABP of any one of claims 1-32, wherein the ABP comprises an antibody fragment.

34. The ABP of any one of claims 1-33, wherein the ABP comprises an alternative scaffold.

35. The ABP of any one of claims 1-34, wherein the ABP comprises an immunoglobulin constant region.

36. The ABP of any one of claims 1-3, 5-7, 9-11,13-15 or 17-35, wherein the ABP comprises heavy chain constant region of a class selected from IgA, IgD, IgE, IgG, or IgM.

37. The ABP of claim 36, wherein the ABP comprises a heavy chain constant region of the class IgG and a subclass selected from IgG4, IgG1, IgG2, or IgG3.

38. The ABP of any one of claims 1-37, wherein the ABP binds hTIGIT (SEQ ID NO: 1) with a $K_D$ of less than about 10 nM, as measured by biolayer interferometry.

39. The ABP of any one of claims 1-38, wherein the ABP binds hTIGIT (SEQ ID NO: 1) with a $K_D$ of less than about 5 nM, as measured by biolayer interferometry.

40. The ABP of any one of claims 1-39, wherein the ABP binds hTIGIT (SEQ ID NO: 1) with a $K_D$ of less than about 2 nM, as measured by biolayer interferometry.

41. The ABP of any one of claims 1-40, wherein the ABP binds cTIGIT (SEQ ID NO: 2) with a $K_D$ of less than about 100 nM, as measured by biolayer interferometry.

42. The ABP of any one of claims 1-41, wherein the ABP binds cTIGIT (SEQ ID NO: 2) with a $K_D$ of less than about 10 nM, as measured by biolayer interferometry.

43. The ABP of any one of claims 1-42, wherein the ABP shows no significant binding to mTIGIT in a biolayer interferometry assay.

44. The ABP of any one of claims 1-43, wherein the ABP binds to cell surface mTIGIT with a $K_D$ of less than about 50 nM.

45. The ABP of any one of claims 43-44, wherein the mTIGIT comprises SEQ ID NO: 3.

46. The ABP of any one of claims 1-45, wherein the ABP comprises a polypeptide sequence having a pyroglutamate (pE) residue at its N-terminus.

47. The ABP of any one of claims 1-46, wherein the ABP comprises a $V_H$ sequence in which an N-terminal Q is substituted with pE.

48. The ABP of any one of claims 1-47, wherein the ABP comprises a $V_L$ sequence in which an N-terminal E is substituted with pE.

49. The ABP of any one of claims 1-48, wherein the ABP comprises a heavy chain sequence in which an N-terminal Q is substituted with pE.

50. The ABP of any one of claims 1-49, wherein the ABP comprises a light chain sequence in which an N-terminal E is substituted with pE.

51. The ABP of any one of claims 1-50 for use as a medicament.

52. The ABP of any one of claims 1-51 for use in the treatment of a cancer or viral infection.

53. The ABP of claim 52 for use in the treatment of a cancer, wherein the cancer is selected from a solid tumor and a hematological tumor.

54. The ABP of any one of claims 1-53 for use as a medicament in the treatment of a disease or condition that was not responsive to a prior therapy.

55. The ABP of claim 54, wherein the prior therapy was a therapy comprising an agent that inhibits the interaction between PD-1 and PD-L1.

56. An isolated polynucleotide encoding an ABP of any one of claims 1-55, a $V_H$ thereof, a $V_L$ thereof, a light chain thereof, a heavy chain thereof or an antigen-binding portion thereof.

57. A vector comprising the polynucleotide of claim 56.

58. A host cell comprising the polynucleotide of claim 56 or the vector of claim 57.

59. A method of producing an ABP of any one of claims 1-55, comprising expressing the ABP in the host cell of claim 58 and isolating the expressed ABP.

60. A pharmaceutical composition comprising an ABP of any one of claims 1-55.

61. The pharmaceutical composition of claim 60, wherein the amount of the ABP in the pharmaceutical composition is sufficient to (a) increase effector T cell activity; (b) increase cytolytic T cell activity; (c) increase NK cell activity; (d) inhibit TIGIT-mediated signaling; (e) inhibit or block the binding of CD155 and or CD112 to TIGIT; or (f) any combination of (a) - (e), in a subject.

62. The pharmaceutical composition of any one of claims 60-61, further comprising an antibody that antagonizes PD-1 or blocks PD-L1 from interacting with PD-1.

63. The pharmaceutical composition of any one of claims 60-62 for use as a medicament.

64. The pharmaceutical composition of any one of claims 60-63 for use in the treatment of a cancer or a viral infection.

65. The pharmaceutical composition of claim 64 for use in the treatment of a cancer, wherein the cancer is selected from a solid tumor and a hematological tumor.

66. The pharmaceutical composition of any one of claims 60-65 for use as a medicament in the treatment of a disease or condition that was not responsive to a prior therapy.

67. The pharmaceutical composition of claim 66, wherein the prior therapy was a therapy comprising an agent that inhibits the interaction between PD-1 and PD-L1.

68. A method of treating or preventing a disease or condition in a subject in need thereof, comprising administering to the subject an effective amount of an ABP of any one of claims 1-55 or a pharmaceutical composition of any one of claims 60-67.

69. The method of claim 68, wherein the disease or condition is a cancer or viral infection.

70. The method of claim 69, wherein the disease or condition is a cancer, and the cancer is selected from a solid tumor and a hematological tumor.

71. A method of modulating an immune response in a subject in need thereof, comprising administering to the subject an effective amount of an ABP of any one of claims 1-55 or a pharmaceutical composition of any one of claims 60-67.

72. The method of any one of claims 68-71, further comprising administering one or more additional therapeutic agents to the subject.

73. The method of claim 72, wherein the additional therapeutic agent is selected from an agent that inhibits the interaction between PD-1 and PD-L1, a chemotherapy, an immunostimulatory agent, radiation, and combinations thereof.

74. The method of claim 73, wherein the additional therapeutic agent is an agent that inhibits the interaction between PD-1 and PD-L1, and wherein the agent that inhibits the interaction between PD-1 and PD-L1 is selected from an antibody, a peptidomimetic, a small molecule or a nucleic acid encoding such agent.

75. The method of claim 74, wherein the agent that inhibits the interaction between PD-1 and PD-L1 is selected from is selected from pembrolizumab, nivolumab, atezolizumab, avelumab, durvalumab, BMS-936559, sulfamonomethoxine 1, and sulfamethizole 2.

76. The method of claim 73, wherein the additional therapeutic agent is an immunostimulatory agent selected from (a) an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent; (b) an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist; (c) a cytokine or a nucleic acid encoding a cytokine; (d) an oncolytic virus or a nucleic acid encoding an oncolytic virus; (e) a T cell expressing a chimeric antigen receptor; (f) a bi- or multi-specific T cell directed antibody or a nucleic acid encoding such antibody; (g) an anti-TGF-ß antibody or a nucleic acid encoding such antibody; (h) a TGF-ß trap or a nucleic acid encoding such trap; (i) a vaccine to a cancer-associated antigen, including such antigen or a nucleic acid encoding such antigen and (j) combinations thereof.

77. The method of claim 76, wherein the additional therapeutic agent is an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent, and the inhibitory receptor or ligand thereof is selected from CTLA-4, PD-1, PD-L1, PD-L2, LAG-3, Tim3, neuritin, BTLA, CECAM-1, CECAM-5, VISTA, LAIR1, CD160, 2B4, TGF-R, KIR, and combinations thereof.

78. The method of claim 76, wherein the additional therapeutic agent is an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist, and the stimulatory receptor of an immune cell is selected from OX40, CD2, CD27, CDS, ICAM-1, LFA-1 (CD11a/CD18), ICOS (CD278), 4-1BB (CD137), GITR, CD28, CD30, CD40, BAFFR, HVEM, CD7, LIGHT, NKG2C, SLAMF7, NKp80, CD160, B7-H3, CD83 ligand, and combinations thereof.

79. The method of claim 76, wherein the additional therapeutic agent is a cytokine or a nucleic acid encoding a cytokine selected from IL-2, IL-5, IL-7, IL-12, IL-15, IL-21, and combinations thereof.

80. The method of claim 76, wherein the additional therapeutic agent is an oncolytic virus or a nucleic acid encoding an oncolytic virus selected from herpes simplex virus, vesicular stomatitis virus, adenovirus, Newcastle disease virus, vaccinia virus, a maraba virus, and combinations thereof.

81. The method of any one of claims 72-80, wherein the additional therapeutic agent is formulated in the same pharmaceutical composition as the ABP.

82. The method of any one of claims 72-80, wherein the additional therapeutic agent is formulated in a different pharmaceutical composition from the ABP.

83. The method of any one of claims 72-80 or 82, wherein the additional therapeutic agent is administered prior to administering the ABP.

84. The method of any one of claims 72-80 or 82, wherein the additional therapeutic agent is administered after administering the ABP.

85. The method of any one of claims 72-84, wherein the additional therapeutic agent is administered contemporaneously with the ABP.

86. The method of any one of claims 68-85, wherein the subject is a subject that has been treated with an agent that inhibits the interaction between PD-1 and PD-L1 prior to performing such method.

87. The method of any one of claims 68-86, wherein the disease or condition afflicting the subject was not responsive to a prior therapy.

88. The method of claim 87, wherein the prior therapy was a therapy comprising an agent that inhibits the interaction between PD-1 and PD-L1.

89. A kit comprising a pharmaceutical composition of any one of claims 60-61, and instructions for the use of such pharmaceutical composition.

90. The kit of claim 89, further comprising an additional pharmaceutical composition comprising an additional therapeutic agent and instructions for the use of such additional therapeutic agent.

91. The kit of claim 90, wherein the additional therapeutic agent is selected from an agent that inhibits the interaction between PD-1 and PD-L1, a chemotherapy, an immunostimulatory agent, radiation, and combinations thereof.

92. The kit of claim 91, wherein the additional therapeutic agent is an agent that inhibits the interaction between PD-1 and PD-L1, and wherein the agent inhibits the interaction between PD-1 and PD-L1 is selected from an antibody, a peptidomimetic, a small molecule or a nucleic acid encoding such agent.

93. The kit of claim 92, wherein the agent that inhibits the interaction between PD-1 and PD-L1 is selected from is selected from pembrolizumab, nivolumab, atezolizumab, avelumab, durvalumab, BMS-936559, sulfamonomethoxine 1, and sulfamethizole 2.

94. The kit of claim 91, wherein the additional therapeutic agent is an immunostimulatory agent selected from (a) an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent; (b) an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist; (c) a cytokine or a nucleic acid encoding a cytokine; (d) an oncolytic virus or a nucleic acid encoding an oncolytic virus; (e) a T cell expressing a chimeric antigen receptor; (f) a bi- or multi-specific T cell directed antibody or a nucleic acid encoding such antibody; (g) an anti-TGF-ß antibody or a nucleic acid encoding such antibody; (h) a TGF-ß trap or a nucleic acid encoding such trap; (i) a vaccine to a cancer-associated antigen, including such antigen or a nucleic acid encoding such antigen and (j) combinations thereof.

95. The kit of claim 94, wherein the additional therapeutic agent is an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent, and the inhibitory receptor or ligand thereof is selected from CTLA-4, PD-1, PD-L1, PD-L2, LAG-3, Tim3, neuritin, BTLA, CECAM-1, CECAM-5, VISTA, LAIR1, CD160, 2B4, TGF-R, KIR, and combinations thereof.

96. The kit of claim 94, wherein the additional therapeutic agent is an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist, and the stimulatory receptor of an immune cell is selected from OX40, CD2, CD27, CDS, ICAM-1, LFA-1 (CD11a/CD18), ICOS (CD278), 4-1BB (CD137), GITR, CD28, CD30, CD40, BAFFR, HVEM, CD7, LIGHT, NKG2C, SLAMF7, NKp80, CD160, B7-H3, CD83 ligand, and combinations thereof.

97. The kit of claim 94, wherein the additional therapeutic agent is a cytokine or a nucleic acid encoding a cytokine selected from IL-2, IL-5, IL-7, IL-12, IL-15, IL-21, and combinations thereof.

98. The kit of claim 94, wherein the additional therapeutic agent is an oncolytic virus or a nucleic acid encoding an oncolytic virus selected from herpes simplex virus, vesicular stomatitis virus, adenovirus, Newcastle disease virus, vaccinia virus, a maraba virus, and combinations thereof.

**WHAT IS CLAIMED IS:**

1. Use of an isolated antibody in the manufacture of a pharmaceutical composition for treating or preventing a disease or condition in a subject in need thereof, wherein the disease or condition is a cancer or viral infection, wherein the antibody specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1) and comprises the following six CDR sequences:

   (a) a CDR-H3 having the sequence A-R-D-G-V-L-$X_1$-L-N-K-R-S-F-D-I, wherein $X_1$ is A or T (SEQ ID NO: 128);

   (b) a CDR-H2 having the sequence S-I-Y-Y-S-G-$X_2$-T-Y-Y-N-P-S-L-K-S, wherein $X_2$, is S, Q or G (SEQ ID NO: 129);

   (c) a CDR-H1 having the sequence G-S-I-$X_3$-S-G-$X_4$-Y-Y-W-G, wherein $X_3$ is E or A, and $X_4$ is L, V or S (SEQ ID NO: 130);

   (d) a CDR-L3 having the sequence QQHTVRPPLT (SEQ ID NO: 64);

   (e) a CDR-L2 having the sequence GASSRAT (SEQ ID NO: 68); and

   (f) a CDR-L1 having the sequence RASQSVSSSYLA (SEQ ID NO: 71),

   wherein the antibody activates CD4+ effector T cells.

2. The use of claim 1, wherein the disease or condition is a cancer, and the cancer is selected from a solid tumor and a hematological tumor.

3. The use of claim 1 or 2, wherein the pharmaceutical composition further comprises one or more additional therapeutic agents, or the pharmaceutical composition is to be administered in combination with one or more additional therapeutic agent.

4. The use of claim 3, wherein the additional therapeutic agent is selected from an agent that inhibits the interaction between PD-1 and PD-L1, a chemotherapy, an immunostimulatory agent, radiation, and combinations thereof.

5. The use of claim 4, wherein the additional therapeutic agent is an agent that inhibits the interaction between PD-1 and PD-L1 and wherein the agent that inhibits the interaction between PD-1 and PD-L1 is selected from an antibody, a peptidomimetic, a small molecule or a nucleic acid encoding such agent.

6. The use of claim 5, wherein the agent that inhibits the interaction between PD-1 and PD-L1 is selected from pembrolizumab, nivolumab, atezolizumab, avelumab, durvalumab, BMS-936559, sulfamonomethoxine 1, and sulfamethizole 2.

7. The use of claim 4, wherein the additional therapeutic agent is an immunostimulatory agent selected from (a) an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent; (b) an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist; (c) a cytokine or a nucleic acid encoding a cytokine; (d) an oncolytic virus or a nucleic acid encoding an oncolytic virus; (e) a T cell expressing a chimeric antigen receptor; (f) a bi- or multi-specific T cell directed antibody or a nucleic acid encoding such antibody; (g) an anti-TGF-β antibody or a nucleic acid encoding such antibody; (h) a TGF-β trap or a nucleic acid encoding such trap; (i) a vaccine to a cancer-associated antigen, including such antigen or a nucleic acid encoding such antigen and (j) combinations thereof.

8. The use of claim 7,
(a) wherein the additional therapeutic agent is an agent that blocks signaling of an inhibitory receptor of an immune cell or a ligand thereof or a nucleic acid encoding such agent, and the inhibitory receptor or ligand thereof is selected from CTLA-4, PD-1, PD-L1 , PD-L2, LAG-3, Tim3, neuritin, BTLA, CECAM-1, CECAM-5, VISTA, LAIR1, CD 160, 2B4, TGF-R, KIR, and combinations thereof,
(b) wherein the additional therapeutic agent is an agonist to a stimulatory receptor of an immune cell or a nucleic acid encoding such agonist, and the stimulatory receptor of an immune cell is selected from OX40, CD2, CD27, CDS, ICAM-1 , LFA-1 (CD11a/CD18), ICOS (CD278), 4-1BB (CD137), GITR, CD28, CD30, CD40, BAFFR, HVEM, CD7, LIGHT, NKG2C, SLAMF7, NKp80, CD160, B7-H3, CD83 ligand, and combinations thereof,
(c) wherein the additional therapeutic agent is a cytokine or a nucleic acid encoding a cytokine selected from IL-2, IL-5, IL-7, IL-12, IL-15, IL-21, and combinations thereof, or
(d) wherein the additional therapeutic agent is an oncolytic virus or a nucleic acid encoding an oncolytic virus selected from herpes simplex virus, vesicular stomatitis

virus, adenovirus, Newcastle disease virus, vaccinia virus, a maraba virus, and combinations thereof.

9. The use of any one of claims 3-8, wherein the additional therapeutic agent is formulated in the same pharmaceutical composition as the antibody, or wherein the additional therapeutic agent is formulated in a different pharmaceutical composition from the antibody.

10. The use of any one of claims 3-9, wherein the additional therapeutic agent is to be administered prior to the administration of the antibody,
after the administration of the antibody, or
contemporaneously with the administration of the antibody.

11. The use of any one of claims 1-10, wherein the subject is a subject that has been administered with an agent that inhibits the interaction between PD-1 and PD-L1 prior to performing administration of the pharmaceutical composition.

12. The use of any one of claims 1-11, wherein the cancer or viral infection afflicting the subject was not responsive to a prior therapy.

13. The use of claim 12, wherein the prior therapy was a therapy comprising an agent that inhibits the interaction between PD-1 and PD-L1.

14. The use of any one of claims 1-13, where the amount of the antibody in the pharmaceutical composition is sufficient to (a) increase effector T cell activity; (b) increase cytolytic T cell activity; (c) increase NK cell activity; (d) inhibit TIGIT - mediated signaling; (e) inhibit or block the binding of CD155 and or CD112 to TIGIT; or (f) any combination of (a) - (e), in the subject.

15. An isolated antibody for use in therapy, wherein the antibody specifically binds human TIGIT (hTIGIT; SEQ ID NO: 1) and comprises the following six CDR sequences:

(a) a CDR-H3 having the sequence A-R-D-G-V-L-$X_1$-L-N-K-R-S-F-D-I, wherein $X_1$ is A or T (SEQ ID NO: 128);

(b) a CDR-H2 having the sequence S-I-Y-Y-S-G-$X_2$-T-Y-Y-N-P-S-L-K-S, wherein $X_2$, is S, Q or G (SEQ ID NO: 129);

(c) a CDR-H1 having the sequence G-S-I-$X_3$-S-G-$X_4$-Y-Y-W-G, wherein $X_3$ is E or A, and $X_4$ is L, V or S (SEQ ID NO: 130);

(d) a CDR-L3 having the sequence QQHTVRPPLT (SEQ ID NO: 64);

(e) a CDR-L2 having the sequence GASSRAT (SEQ ID NO: 68); and

(f) a CDR-L1 having the sequence RASQSVSSSYLA (SEQ ID NO: 71),

wherein the antibody activates CD4+ effector T cells.