

What is claimed:

1. Use of a cytotoxic bispecific antibody in the manufacture of a medicament for treating a cancer in a subject, wherein the bispecific antibody comprises a first antigen binding arm that exhibits weak to no detectable binding to human CD3 and cynomolgus CD3, and a second antigen binding arm that binds a tumor-associated antigen, wherein the first arm comprises a heavy chain variable region (HCVR) comprising complementarity determining regions HCDR1-HCDR2-HCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 36-38-40 or SEQ ID NOs: 140-142-144, and a common light chain.
2. The use of claim 1, wherein the bispecific antibody exhibits T cell activation *in vitro*.
3. The use of claim 1 or 2, wherein the tumor-associated antigen is expressed on a human tumor cell.
4. The use of any one of claims 1-3, wherein the bispecific antibody induces T cell-mediated tumor cell killing with an EC₅₀ value of less than about 1.3 nM, as measured in an *in vitro* T cell-mediated tumor cell killing assay.
5. The use of any one of claims 1-4, wherein the target tumor cell expresses a tumor-associated antigen selected from the group consisting of AFP, ALK, BAGE proteins, BIRC5 (survivin), BIRC7, β -catenin, bcr-abl, BRCA1, BORIS, CA9, carbonic anhydrase IX, caspase-8, CALR, CCR5, CD19, CD20 (MS4A1), CD22, CD30, CD40, CDK4, CEA, CTLA4, cyclin-B1, CYP1B1, EGFR, EGFRvIII, ErbB2/Her2, ErbB3, ErbB4, ETV6-AML, EpCAM, EphA2, Fra-1, FOLR1, GAGE proteins (*e.g.*, GAGE-1, -2), GD2, GD3, GloboH, glypican-3, GM3, gp100, Her2, HLA/B-raf, HLA/k-ras, HLA/MAGE-A3, hTERT, LMP2, MAGE proteins (*e.g.*, MAGE-1, -2, -3, -4, -6, and -12), MART-1, mesothelin, ML-IAP, Muc1, Muc2, Muc3, Muc4, Muc5, Muc16 (CA-125), MUM1, NA17, NY-BR1, NY-BR62, NY-BR85, NY-ESO1, OX40, p15, p53, PAP, PAX3, PAX5, PCTA-1, PLAC1, PRLR, PRAME, PSMA (FOLH1), RAGE proteins, Ras, RGS5, Rho, SART-1, SART-3, STEAP1, STEAP2, TAG-72, TGF- β , TMPRSS2, Thompson-nouvelle antigen (Tn), TRP-1, TRP-2, tyrosinase, and uroplakin-3.

6. The use of claim 5, wherein the tumor-associated antigen is CD20, EGFRvIII, PSMA (FOLH1), STEAP2, or MUC16.

7. The use of any one of claims 1-6, wherein the common light chain comprises a light chain variable region (LCVR) comprising complementarity determining regions LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 164-166-168.

8. The use of claim 7, wherein the LCVR comprises the amino acid sequence of SEQ ID NO: 162.

9. The use of any one of claims 1-6, wherein the common light chain is a cognate light chain of the second antigen-binding arm that binds a tumor-associated antigen.

10. The use of claim 7, wherein the first antigen binding arm comprises complementarity determining regions HCDR1-HCDR2-HCDR3-LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 36-38-40-164-166-168.

11. The use of claim 7, wherein the first antigen binding arm comprises complementarity determining regions HCDR1-HCDR2-HCDR3-LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 140-142-144-164-166-168.

12. The use of claim 8, wherein the bispecific antibody comprises a HCVR and LCVR amino acid sequence pair (HCVR/LCVR) comprising the amino acid sequences of SEQ ID NOs: 34/162.

13. The use of claim 8, wherein the bispecific antibody comprises a HCVR and LCVR amino acid sequence pair (HCVR/LCVR) comprising the amino acid sequences of SEQ ID NOs: 138/162.

14. A cytotoxic bispecific antibody comprising a first antigen binding arm that exhibits weak to no detectable binding to human CD3 and cynomolgus CD3, and a second antigen binding arm that binds a tumor-associated antigen, wherein the first arm comprises a heavy chain variable region (HCVR) comprising complementarity determining regions HCDR1-

HCDR2-HCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 36-38-40 or SEQ ID NOs: 140-142-144, and a common light chain.

15. The bispecific antibody of claim 14, wherein the common light chain comprises a light chain variable region (LCVR) comprising complementarity determining regions LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 164-166-168.

16. The bispecific antibody of claim 15, wherein the LCVR comprises the amino acid sequence of SEQ ID NO: 162.

17. The bispecific antibody of claim 14, wherein the common light chain is a cognate light chain of the second antigen-binding arm that binds a tumor-associated antigen.

18. The bispecific antibody of claim 15, wherein the first antigen binding arm comprises complementarity determining regions HCDR1-HCDR2-HCDR3-LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 36-38-40-164-166-168.

19. The bispecific antibody of claim 15, wherein the first antigen binding arm comprises complementarity determining regions HCDR1-HCDR2-HCDR3-LCDR1-LCDR2-LCDR3 comprising the amino acid sequences, respectively, of SEQ ID NOs: 140-142-144-164-166-168.

20. The bispecific antibody of claim 16, wherein the bispecific antibody comprises a HCVR and LCVR amino acid sequence pair (HCVR/LCVR) comprising the amino acid sequences of SEQ ID NOs: 34/162.

21. The bispecific antibody of claim 16, wherein the bispecific antibody comprises a HCVR and LCVR amino acid sequence pair (HCVR/LCVR) comprising the amino acid sequences of SEQ ID NOs: 138/162.

22. A pharmaceutical composition comprising the cytotoxic bispecific antibody of any one of claims 14-21, and a pharmaceutically acceptable carrier or diluent.

23. Use of the pharmaceutical composition of claim 22 in the manufacture of a medicament for treating cancer in a subject.

24. The use of claim 23, wherein the cancer is selected from the group consisting of: pancreatic cancer, melanoma, glioblastoma, head and neck cancer, prostate cancer, malignant gliomas, osteosarcoma, colorectal cancer, gastric cancer, malignant mesothelioma, multiple myeloma, ovarian cancer, small cell lung cancer, non-small cell lung cancer, synovial sarcoma, thyroid cancer, breast cancer, melanomaglioma, breast cancer, squamous cell carcinoma, esophageal cancer, clear cell renal cell carcinoma, chromophobe renal cell carcinoma, renal oncocytoma, renal transitional cell carcinoma, urothelial carcinoma, adenocarcinoma, or small cell carcinoma.

25. The use of claim 23 or 24, wherein the subject is afflicted with a tumor that is resistant to, or incompletely responsive to monospecific antibody therapy alone.