

CLAIMS

1. Use of an anti-TIGIT antibody or antigen binding fragment thereof comprising:

(i) a heavy chain variable region that comprises (a) a HCDR (Heavy Chain Complementarity Determining Region) 1 of SEQ ID NO: 3, (b) a HCDR2 of SEQ ID NO: 13, and (c) a HCDR3 of SEQ ID NO: 5; and a light chain variable region that comprises (d) a LCDR (Light Chain Complementarity Determining Region) 1 of SEQ ID NO: 6, (e) a LCDR2 of SEQ ID NO: 7, and (f) a LCDR3 of SEQ ID NO: 8; or

(ii) a heavy chain variable region that comprises (a) a HCDR1 of SEQ ID NO: 3, (b) a HCDR2 of SEQ ID NO: 4, and (c) a HCDR3 of SEQ ID NO: 5; and a light chain variable region that comprises: (d) a LCDR1 of SEQ ID NO: 6, (e) a LCDR2 of SEQ ID NO: 7, and (f) a LCDR3 of SEQ ID NO: 8 in the manufacture of a medicament for cancer treatment, wherein an effective amount of the anti-TIGIT antibody or antigen-binding fragment thereof is to be administered in combination with an anti-PD1 antibody or antigen binding fragment thereof.

2. The use of claim 1, wherein the anti-TIGIT antibody or antigen-binding fragment thereof comprises:

(i) a heavy chain variable region (VH) that comprises SEQ ID NO:19, and a light chain variable region (VL) that comprises SEQ ID NO: 21;

(ii) a heavy chain variable region (VH) that comprises SEQ ID NO: 14, and a light chain variable region (VL) that comprises SEQ ID NO: 16; or

(iii) a heavy chain variable region (VH) that comprises SEQ ID NO: 9, and a light chain variable region (VL) that comprises SEQ ID NO: 11.

3. The use of claim 1, wherein the anti-PD1 antibody or antigen-binding fragment thereof comprises an antibody or an antigen binding fragment thereof which specifically binds human PD1, and comprises:

a heavy chain variable region that comprises (a) a HCDR1 of SEQ ID NO: 25, (b) HCDR2 of SEQ ID NO: 26, and (c) HCDR3 of SEQ ID NO: 27; and a light chain variable region that comprises (d) LCDR1 of SEQ ID NO: 28, (e) LCDR2 of SEQ ID NO: 29, and (f) LCDR3 of SEQ ID NO: 30.

4. The use of claim 3, wherein the anti-PD1 antibody or antigen binding fragment thereof which specifically binds human PD1 comprises a heavy chain variable region (VH) comprising an amino

acid sequence of SEQ ID NO:32 and a light chain variable region (VL) comprising an amino acid sequence of SEQ ID NO: 34.

5. The use of claim 3 or 4, wherein the anti-PD1 antibody comprises an IgG4 constant domain comprising SEQ ID NO: 35.

6. The use of claim 1, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is an antibody fragment selected from the group consisting of Fab, Fab'-SH, Fv, scFv, and (Fab')₂ fragments.

7. The use of claim 1, wherein the anti-PD1 antibody or antigen-binding fragment thereof is an antibody fragment selected from the group consisting of Fab, Fab'-SH, Fv, scFv, and (Fab')₂ fragments.

8. The use of claim 1, wherein an effective amount of an anti-VEGF antibody is to be administered in combination with the anti-TIGIT antibody or antigen-binding fragment thereof and anti-PD1 antibody or antigen binding fragment thereof.

9. The use of claim 8, wherein the anti-VEGF antibody is bevacizumab or BAT1706.

10. The use of claim 1 or claim 8, wherein the cancer is selected from the group consisting of breast cancer, colon cancer, pancreatic cancer, head and neck cancer, gastric cancer, kidney cancer, liver cancer, small cell lung cancer, non-small cell lung cancer, esophageal cancer, ovarian cancer, uterine cancer, cervical cancer, skin cancer, mesothelioma, lymphoma, leukemia, myeloma and sarcoma.

11. The use of claim 10, wherein the cancer is small cell lung cancer and wherein the small cell lung cancer is limited stage small cell lung cancer.

12. The use of claim 10, wherein the cancer is non-small cell lung cancer.

13. The use of claim 10, wherein the cancer is head and neck cancer, and wherein the head and neck cancer is nasopharyngeal cancer.

14. The use of claim 10, wherein the cancer is esophageal cancer, and wherein the esophageal cancer

is esophageal squamous cell carcinoma (ESCC).

15. The use of claim 10, wherein the cancer is uterine cancer.

16. The use of claim 10, wherein the cancer is gastric cancer, and wherein the gastric cancer is gastroesophageal junction cancer.

17. The use of claim 10, wherein the cancer is cervical cancer, and wherein the cervical cancer is recurring or metastatic cervical cancer.

18. The use of claim 10, wherein the cancer is skin cancer, and wherein the skin cancer is basal cell carcinoma.

19. The use of claim 10, wherein the cancer is pancreatic cancer.

20. The use of claim 10, wherein the cancer is liver cancer and where in the liver cancer is hepatocellular carcinoma.

21. The use of claim 1, wherein chemotherapy is to be administered in combination with the anti-TIGIT antibody or antigen-binding fragment thereof and anti-PD1 antibody or antigen binding fragment thereof.

22. The use of claim 21, wherein the chemotherapy is chemoradiotherapy.

23. The use of claim 1, wherein the anti-PD1 antibody or antigen-binding fragment thereof is to be dosed at 200mg every three weeks.

24. The use of claim 1, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is to be dosed at a range of 50mg-900mg.

25. The use of claim 24, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is to be dosed at 50 mg every three weeks.

26. The use of claim 24, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is to be dosed at 150 mg every three weeks.

27. The use of claim 24, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is to be dosed at 450 mg every three weeks.

28. The use of claim 24, wherein the anti-TIGIT antibody or antigen-binding fragment thereof is to be dosed at 900 mg every three weeks.