What is claimed is:

1. An anticancer drug for treating non-hematologic cancers, the anticancer drug containing, as an active ingredient thereof, an anti-transmembrane protein 180 (TMEM-180) antibody or an antigen-binding fragment thereof, wherein the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

2. An anticancer drug for treating non-hematologic cancers, the anticancer drug containing, as an active ingredient thereof, an anti-TMEM-180 antibody having a substance having anticancer activity bound thereto, or an antigen-binding fragment thereof, wherein the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

3. An anti-TMEM-180 antibody or an antigen-binding fragment thereof for use in therapy, wherein the therapy is for treating non-hematologic cancers and the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

4. Use of an anti-TMEM-180 antibody or an antigen-binding fragment thereof in the manufacture of a medicament for the treatment of non-hematologic cancer, wherein the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

5. An anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein the anti-TMEM-180 antibody comprises the six CDRs indicated below:

heavy chain CDR1: DYWVS (SEQ ID NO: 72);

heavy chain CDR2: EIYPNSGATNFNENFK (SEQ ID NO: 73);

heavy chain CDR3: DGTMGIAYYFDY (SEQ ID NO: 74);

light chain CDR1: KASQNINRYLN (SEQ ID NO: 75);

light chain CDR2: NANSLQT (SEQ ID NO: 76); and

light chain CDR3: LQHNSWPYT (SEQ ID NO: 77).

6. An anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein the anti-TMEM-180 antibody comprises the six CDRs indicated below:

heavy chain CDR1: SNGVG (SEQ ID NO: 88);

heavy chain CDR2: TIWTGGGTNYNSGVQS (SEQ ID NO: 89);

heavy chain CDR3: EYMGFDY (SEQ ID NO: 90);

light chain CDR1: KASQNVGINVG (SEQ ID NO: 91);

light chain CDR2: WASNRDT (SEQ ID NO: 92); and

light chain CDR3: LQHNSYPRT (SEQ ID NO: 93).

7. An anti-TMEM-180 antibody or an antigen-binding fragment thereof , wherein the anti-TMEM-180 antibody comprises the six CDRs indicated below:

heavy chain CDR1: SNGVG (SEQ ID NO: 96);

heavy chain CDR2: TIWSGGGTNYNSAVQS (SEQ ID NO: 97);

heavy chain CDR3: EEKGFAY (SEQ ID NO: 98);

light chain CDR1: KASQNVGINVG (SEQ ID NO: 99);

light chain CDR2: WASNRDT (SEQ ID NO: 100); and

light chain CDR3: LQHNSYPRA (SEQ ID NO: 101).

8. An anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein

the anti-TMEM-180 antibody contains:

a heavy chain containing the amino acid sequence represented by SEQ ID NO: 78, and

a light chain containing the amino acid sequence represented by SEQ ID NO: 79.

9. An anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein the anti-TMEM-180 antibody contains:

a heavy chain containing the amino acid sequence represented by SEQ ID NO: 94, and

a light chain containing the amino acid sequence represented by SEQ ID NO: 95.

10. An anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein the anti-TMEM-180 antibody contains:

a heavy chain containing the amino acid sequence represented by SEQ ID NO: 102, and

a light chain containing the amino acid sequence represented by SEQ ID NO: 103.

11. An anticancer drug for treating non-hematologic cancers, the anticancer drug containing, as an active ingredient thereof, the anti-transmembrane protein 180 (TMEM-180) antibody or an antigen-binding fragment thereof according to any one of claims 5 to 10.

12. An anticancer drug for treating non-hematologic cancers, the anticancer drug

containing, as an active ingredient thereof, the anti-TMEM-180 antibody according to any one of claims 5 to 10 having a substance having anticancer activity bound thereto, or an antigen-binding fragment thereof.

13. The anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 5 to 10 for use in therapy.

14. Use of the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 5 to 10 in the manufacture of a medicament for the treatment of non-hematologic cancer.

15. The anticancer drug according to any one of claims 1, 2, 11 and 12, the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 3, 5 to 10 and 13, or the use according to claim 4 or 14, wherein the anti-TMEM-180 antibody has one or more N-linked oligosaccharides bound to the Fc region and fucose is not bound to N-acetylglucosamine on the reducing end of the N-linked oligosaccharide.

16. The anticancer drug according to any one of claims 1, 2, 11 and 12, the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 3, 5 to 10 and 13, or the use according to claim 4 or 14, which is targeted at cancer expressing TMEM-180.

17. The anticancer drug according to any one of claims 1, 2, 11 and 12, the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 3, 5 to 10 and 13, or the use according to claim 4 or 14, which is targeted at

colon cancer.

18. The anticancer drug according to any one of claims 1, 2, 11 and 12, the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 3, 5 to 10 and 13, or the use according to claim 4 or 14, which is to be administered concomitantly with vaccine therapy using a composition containing at least one peptide comprising an amino acid sequence represented by SEQ ID NOs: 104 to 170.

19. A nucleic acid encoding any one of the heavy chains CDR1 to CDR3 and light chains CDR1 to CDR3 according to any one of claims 5 to 7.

20. A nucleic acid encoding any one of the heavy chains and light chains according to any one of claims 8 to 10.

21. An expression vector containing the nucleic acid according to claim 19 or 20.

22. A non-human transformant containing the expression vector according to claim 21.

23. A method for producing an anti-TMEM-180 antibody, or an antigen-binding fragment thereof, comprising the steps of:

expressing an antibody in the transformant according to claim 22; and

recovering the antibody.

24. A method for testing of non-hematologic cancers, comprising a step of

measuring the amount of TMEM-180 in a sample collected from a subject, wherein the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

25. The method according to claim 24, wherein the amount of TMEM-180 is measured by immunoassay using an anti-TMEM-180 antibody or an antigen-binding fragment thereof.

26. A method for testing of non-hematologic cancers, comprising a step of measuring the amount of TMEM-180 in a sample collected from a subject, wherein the amount of TMEM-180 is measured by immunoassay using the anti-TMEM-180 antibody or an antigen-binding fragment thereof according to any one of claims 5 to 10.

27. The method according to any one of claims 24 to 26, which is targeted at colon cancer.

28. The method according to any one of claims 24 to 27, which is used to test for recurrence or metastasis following treatment.

29. A kit for testing of non-hematologic cancers, the kit containing an anti-TMEM-180 antibody or an antigen-binding fragment thereof, wherein the non-hematologic cancers are selected from the group consisting of: colon cancer, brain cancer, breast cancer and combinations thereof.

30. A kit for testing of non-hematologic cancers, the kit containing the anti-TMEM-

180 antibody or antigen-binding fragment thereof according to any one of claims 5 to 10.

31. The kit according to claim 29 or 30, which is targeted at colon cancer.