CLAIMS

1. An antigen-binding molecule comprising:
(1) a cancer-specific antigen-binding Fab domain;
(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and
(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity.

2. The antigen-binding molecule of claim 1, wherein the TNF superfamily-binding Fab domain or the TNF receptor superfamily-binding Fab domain is a CD137-binding Fab domain.

3. The antigen-binding molecule of claim 1 or 2, which is a bispecific antibody.

4. A pharmaceutical composition comprising as an active ingredient the antigen-binding molecule of any one of claims 1 to 3.

5. The pharmaceutical composition of claim 4, which is a cytotoxicity-inducing composition.

6. The pharmaceutical composition of claim 4, which is a composition for use in the treatment of cancer.

7. A pharmaceutical composition comprising a combination of a first antigen-binding molecule of any one of claims 1 to 3, and a second antigen-binding molecule that comprises:
(1) a cancer-specific antigen-binding domain; and
(2) a T cell receptor complex-binding domain.

8. Use of a combination of:
a first antigen-binding molecule comprising:
(1) a cancer-specific antigen-binding Fab domain;
(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity, and

a second antigen-binding molecule comprising:

(1) a cancer-specific antigen-binding domain;

(2) a T cell receptor complex-binding domain and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity,

in the manufacture of a medicament for the treatment of cancer.

9. The composition or use of any one of preceding claims, wherein the TNF superfamily-binding Fab domain or the TNF receptor superfamily-binding Fab domain of the first antigen-binding molecule is a CD137-binding Fab domain.

10. The composition or use of any one of the preceding claims, wherein the T cell receptor complex-binding domain is a T cell receptor-binding domain.

11. The composition or use of any one of the preceding claims, wherein the T cell receptor complex-binding domain is a CD3-binding domain.

12. The composition or use of any one of the preceding claims, wherein the second antigen-binding molecule is a bispecific antibody.

13. The composition or use of any one of the preceding claims, wherein the first antigen-binding molecule and the second antigen-binding molecule are mixed, are to be used concomitantly, or are to be administered either simultaneously or separately.

14. The composition or use of any one of the preceding claims, wherein the composition or medicament is cytotoxicity-inducing composition.

15. The composition of any one of claims 7 or 9 to 13, which is a composition for use in the treatment of cancer.

16. A pharmaceutical composition comprising as an active ingredient a first antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding Fab domain;

(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity,

to be used concomitantly with a second antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding domain;

(2) a T cell receptor complex-binding domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity.

17. Use of a first antigen-binding molecule comprising:

(1) a cancer-specific antigen-binding Fab domain;

(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity, in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be used concomitantly with a second antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding domain;

(2) a T cell receptor complex-binding domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity.

18. The composition of claim 16 or the use of claim 17, where in the composition or medicament is cytotoxicity-inducing.

19. The composition of claim 16, which is a composition for use in the treatment of cancer.

20. The composition or use of any one of claims 16 to 19, wherein the TNF superfamily-binding Fab domain or the TNF receptor superfamily-binding Fab domain is a CD137-binding Fab domain or a CD40-binding Fab domain.

21. The composition or use of any one of claims 16 to 20, wherein the T cell receptor complex-binding domain is a T cell receptor-binding domain.

22. The composition or use of any one of claims 16 to 20, wherein the T cell receptor complex-binding domain is a CD3-binding domain.

23. The composition or use of any one of claims 16 to 22, wherein the first antigen-binding molecule and/or the second antigen-binding molecule is a bispecific antibody.

24. The pharmaceutical composition of any one of claims 16 to 23, which is to be administered either simultaneously with or separately from the second antigen-binding molecule.

25. A pharmaceutical composition comprising as an active ingredient a second antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding domain;

(2) a T cell receptor complex-binding domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity,

to be used concomitantly with a first antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding Fab domain;

(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity.

26. Use of a second antigen-binding molecule comprising:

(1) a cancer-specific antigen-binding domain;

(2) a T cell receptor complex-binding domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity, in the manufacture of a medicament for the treatment of cancer, wherein the medicament is to be used concomitantly with a first antigen-binding molecule that comprises:

(1) a cancer-specific antigen-binding Fab domain;

(2) a tumor necrosis factor (TNF) superfamily-binding Fab domain or a tumor necrosis factor (TNF) receptor superfamily-binding Fab domain; and

(3) an FcRn-binding domain, wherein the FcRn-binding domain is an antibody Fc region having decreased Fcγ receptor-binding activity.

27. The composition of claim 25 or the use of claim 26, wherein the composition or medicament is cytotoxicity-inducing composition.

28. The composition of claim 25, which is a composition for use in the treatment of cancer.

29. The composition or use of any one of claims 25 to 28, wherein the T cell receptor complex-binding domain is a T cell receptor-binding domain.

30. The composition or use of any one of claims 25 to 28, wherein the T cell receptor complex-binding domain is a CD3-binding domain.

31. The composition or use of any one of claims 25 to 30, wherein the TNF superfamily-binding Fab domain or the TNF receptor superfamily-binding Fab domain is a CD137-binding Fab domain or a CD40-binding Fab domain.

32. The composition or use of any one of claims 25 to 31, wherein the first antigen-binding molecule and/or the second antigen-binding molecule is a bispecific antibody.

33. The composition or use of any one of claims 25 to 31, which is to be administered either simultaneously with or separately from the first antigen-binding molecule.