

CLAIMS

1. An anti-Siglec-10 antibody, wherein the antibody comprises (a) a heavy chain variable region comprising one or more of a complementarity determining region (CDR) 1 comprising the sequence set forth in SEQ ID NO: 3, a CDR2 comprising the sequence set forth in SEQ ID NO: 4, and a CDR3 comprising the sequence set forth in SEQ ID NO: 5; and, (b) a light chain variable region comprising one or more of a CDR1 comprising the sequence set forth in SEQ ID NO: 6, a CDR2 comprising the sequence set forth in SEQ ID NO: 7, and a CDR3 comprising the sequence set forth in SEQ ID NO: 8.
2. The anti-Siglec-10 antibody of claim 1, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 1 and the light chain variable region comprises the sequence set forth in SEQ ID NO: 2.
3. The anti-Siglec-10 antibody of claim 1 or 2, wherein the antibody is a chimeric antibody.
4. The anti-Siglec-10 antibody of claim 1, wherein the heavy chain variable region comprises the sequence set forth in one of SEQ ID NOS: 9-13, and the light chain variable region comprises the sequence set forth in one of SEQ ID NOS: 14-18.
5. The anti-Siglec-10 antibody of claim 4, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 9, 10, or 11, and the light chain variable region comprises the sequence set forth in SEQ ID NO: 15.
6. The anti-Siglec-10 antibody of claim 5, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 9.
7. The anti-Siglec-10 antibody of claim 6, wherein the heavy chain comprises the sequence set forth in SEQ ID NO: 25.

8. The anti-Siglec-10 antibody of claim 7, wherein the light chain comprises the sequence set forth in SEQ ID NO: 27.

9. The anti-Siglec-10 antibody of claim 5, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 10.

10. The anti-Siglec-10 antibody of claim 9, wherein the heavy chain comprises the sequence set forth in SEQ ID NO: 32.

11. The anti-Siglec-10 antibody of claim 10, wherein the light chain comprises the sequence set forth in SEQ ID NO: 27.

12. The anti-Siglec-10 antibody of claim 5, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 11.

13. The anti-Siglec-10 antibody of claim 4, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 10 or 12, and the light chain variable region comprises the sequence set forth in SEQ ID NO: 17.

14. The anti-Siglec-10 antibody of claim 13, wherein the heavy chain variable region comprises the sequence set forth in SEQ NO: 10.

15. The anti-Siglec-10 antibody of claim 13, wherein the heavy chain variable region comprises the sequence set forth in SEQ NO: 12.

16. The anti-Siglec-10 antibody of claim 4, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 10 or 12, and the light chain variable region comprises the sequence set forth in SEQ ID NO: 16.

17. The anti-Siglec-10 antibody of claim 16, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 10.

18. The anti-Siglec-10 antibody of claim 17, wherein the heavy chain comprises the sequence set forth in SEQ ID NO: 32.

19. The anti-Siglec-10 antibody of claim 18, wherein the light chain comprises the sequence set forth in SEQ ID NO: 34.

20. The anti-Siglec-10 antibody of claim 16, wherein the heavy chain variable region comprises the sequence set forth in SEQ ID NO: 12.

~~21. A method of treating a cancer in a patient in need thereof, comprising administering the anti-Siglec-10 antibody of any one of claims 1-20 to the patient.~~

~~22. The method of claim 21, wherein the anti-Siglec-10 antibody is administered in combination with a second cancer therapy.~~

~~23. The method of claim 22, wherein the second cancer therapy is a cancer-targeting immunotherapy or an immune-cell-targeting immunotherapy.~~

~~24. The method of claim 23, wherein the second cancer therapy is an anti-CTLA-4 antibody.~~

~~25. The method of any one of claims 21-24, wherein the cancer is an advanced solid tumor, a hematologic cancer, or a cancer that includes infiltrating cells that bind to the anti-Siglec-10 antibody.~~

~~26. The method of claim 25, wherein the cancer is an advanced solid tumor selected from the group consisting of lung adenocarcinoma (LUAD), a skin-cutaneous melanoma-metastasis (SKCM-TM), a lung squamous cell carcinoma (LUSC), a breast invasive carcinoma-basal, a breast invasive carcinoma-Her2, a pancreatic adenocarcinoma, a head-and-neck squamous cell carcinoma, a kidney renal clear cell carcinoma, a stomach adenocarcinoma, a glioblastoma~~

~~multiforme, a breast invasive carcinoma—LumB, or a breast invasive carcinoma—LumA, a non-small cell lung cancer, a glioblastoma, a melanoma, a low grade glioma, a kidney cancer, a breast cancer basal type, a Her2+ breast cancer, a pancreatic cancer, and an ovarian cancer.~~

~~27. The method of claim 26, wherein the lung adenocarcinoma is a non-small cell lung adenocarcinoma.~~

~~28. The method of claim 25, wherein the cancer is a hematologic cancer selected from the group consisting of a leukemia, a myeloid dysplasia syndrome, a B-cell lymphoma, and a multiple myeloma.~~

~~29.21. An anti-Siglec-10 antibody, wherein the heavy chain comprises the sequence set forth in SEQ ID NO: 32 and the light chain comprises the sequence set forth in SEQ ID NO: 27; the heavy chain comprises the sequence set forth in SEQ ID NO: 25 and the light chain comprises the sequence set forth in SEQ ID NO: 27; or the heavy chain comprises the sequence set forth in SEQ ID NO: 32 and the light chain comprises the sequence set forth in SEQ ID NO: 34.~~

~~30. A method of treating a cancer in a patient in need thereof, comprising administering the anti-Siglec-10 antibody of claim 29 to the patient.~~

~~31. The method of claim 30, wherein the anti-Siglec-10 antibody is administered in combination with a second cancer therapy.~~

~~32. The method of claim 31, wherein the second cancer therapy is a cancer-targeting immunotherapy or an immune-cell-targeting immunotherapy.~~

~~33. The method of claim 32, wherein the second cancer therapy is an anti-CTLA-4 antibody.~~

~~34.~~ The method of any one of claims ~~30-33~~, wherein the cancer is an advanced solid tumor, a hematologic cancer, or a cancer that includes infiltrating cells that bind to the anti-Siglec-10 antibody.

~~35.~~ The method of claim ~~34~~, wherein the cancer is an advanced solid tumor selected from the group consisting of lung adenocarcinoma (LUAD), a skin cutaneous melanoma—metastasis (SKCM-TM), a lung squamous cell carcinoma (LUSC), a breast invasive carcinoma—basal, a breast invasive carcinoma—Her2, a pancreatic adenocarcinoma, a head and neck squamous cell carcinoma, a kidney renal clear cell carcinoma, a stomach adenocarcinoma, a glioblastoma multiforme, a breast invasive carcinoma—LumB, or a breast invasive carcinoma—LumA, a non-small cell lung cancer, a glioblastoma, a melanoma, a low grade glioma, a kidney cancer, a breast cancer basal type, a Her2+ breast cancer, a pancreatic cancer, and an ovarian cancer.

~~36.~~ The method of claim ~~35~~, wherein the lung adenocarcinoma is a non-small cell lung adenocarcinoma.

~~37.~~ The method of claim ~~34~~, wherein the cancer is a hematologic cancer selected from the group consisting of a leukemia, a myeloid dysplasia syndrome, a B-cell lymphoma, and a multiple myeloma.

~~38-22.~~ Use of the anti-Siglec-10 antibody of any one of claims ~~1-20~~21 in the manufacture of a medicament for treating cancer.

~~39-23.~~ The use of claim ~~22~~, wherein the medicament is intended for use in combination with a second cancer therapy.

~~40-24.~~ The use of claim ~~23~~, wherein the second cancer therapy is a cancer-targeting immunotherapy or an immune-cell-targeting immunotherapy.

~~41-25.~~ The use of claim 24, wherein the second cancer therapy is an anti-CTLA-4 antibody.

~~42-26.~~ The use of any one of claims 22-25, wherein the cancer is an advanced solid tumor, a hematologic cancer, or a cancer that includes infiltrating cells that bind to the anti-Siglec-10 antibody.

~~43-27.~~ The use of claim 26, wherein the cancer is an advanced solid tumor selected from the group consisting of lung adenocarcinoma (LUAD), a skin cutaneous melanoma—metastasis (SKCM-TM), a lung squamous cell carcinoma (LUSC), a breast invasive carcinoma—basal, a breast invasive carcinoma—Her2, a pancreatic adenocarcinoma, a head and neck squamous cell carcinoma, a kidney renal clear cell carcinoma, a stomach adenocarcinoma, a glioblastoma multiforme, a breast invasive carcinoma—LumB, or a breast invasive carcinoma—LumA, a non-small cell lung cancer, a glioblastoma, a melanoma, a low grade glioma, a kidney cancer, a breast cancer basal type, a Her2+ breast cancer, a pancreatic cancer, and an ovarian cancer.

~~44-28.~~ The use of claim 27, wherein the lung adenocarcinoma is a non-small cell lung adenocarcinoma.

~~45-29.~~ The use of claim 26, wherein the cancer is a hematologic cancer selected from the group consisting of a leukemia, a myeloid dysplasia syndrome, a B cell lymphoma, and a multiple myeloma.

~~46.~~ Use of the anti-Siglec-10 antibody of claim 29 in the manufacture of a medicament for treating cancer.

~~47.~~ The use of claim 46, wherein the medicament is intended for use in combination with a second cancer therapy.

~~48. The use of claim 47, wherein the second cancer therapy is a cancer-targeting immunotherapy or an immune-cell targeting immunotherapy.~~

~~49. The use of claim 48, wherein the second cancer therapy is an anti-CTLA-4 antibody.~~

~~50. The use of any one of claims 46-49, wherein the cancer is an advanced solid tumor, a hematologic cancer, or a cancer that includes infiltrating cells that bind to the anti-Siglec-10 antibody.~~

~~51. The use of claim 50, wherein the cancer is an advanced solid tumor selected from the group consisting of lung adenocarcinoma (LUAD), a skin cutaneous melanoma—metastasis (SKCM-TM), a lung squamous cell carcinoma (LUSC), a breast invasive carcinoma—basal, a breast invasive carcinoma—Her2, a pancreatic adenocarcinoma, a head and neck squamous cell carcinoma, a kidney renal clear cell carcinoma, a stomach adenocarcinoma, a glioblastoma multiforme, a breast invasive carcinoma—LumB, or a breast invasive carcinoma—LumA, a non-small cell lung cancer, a glioblastoma, a melanoma, a low grade glioma, a kidney cancer, a breast cancer basal type, a Her2+ breast cancer, a pancreatic cancer, and an ovarian cancer.~~

~~52. The use of claim 51, wherein the lung adenocarcinoma is a non-small cell lung adenocarcinoma.~~

~~53. The use of claim 50, wherein the cancer is a hematologic cancer selected from the group consisting of a leukemia, a myeloid dysplasia syndrome, a B cell lymphoma, and a multiple myeloma.~~