

CLAIMS

1. An isolated specific binding member capable of binding sialyl-di-Lewis^a.
- 5 2. The binding member according to claim 1, wherein the binding member is specific for sialyl-di-Lewis^a and sialyl-Lewis^{a-x}.
3. The binding member according to claim 1 or claim 2, wherein the binding member is specific for sialyl-di-Lewis^a, sialyl-Lewis^{a-x} and mono-sialyl-Lewis^a, wherein the
10 mono-sialyl-Lewis^a is bound to a glycoprotein.
4. The binding member according to any preceding claim, wherein the binding member does not bind to mono-sialyl-Lewis^a bound to a glycolipid.
- 15 5. The binding member according to claim 4, wherein the mono-sialyl-Lewis^a is linked to the protein by a glycan chain comprising at least 4 glycan monomer units.
6. The binding member according to any preceding claim, wherein the binding member is mAb FG129 or Chimeric FG129 (CH129), or a fragment thereof.
20
7. The binding member according to any preceding claim, wherein the binding member is bispecific.
8. The binding member according to claim 7, wherein the bispecific binding member is
25 additionally specific for CD3.
9. The binding member according to any preceding claim, wherein the binding member comprises one or more binding domains selected from the amino acid sequence of residues 26 to 33 (CDRH1), 50-59 (CDRH2) and 98-106 (CDRH3) of Figure 1a or 2a.
30
10. The binding member according to any preceding claim, wherein the binding member comprises one or more binding domains selected from the amino acid sequence of

residues 27 to 38 (CDRL1), 56-58 (CDRL2) and 95-103 (CDRL3) of Figure 1b or 2b.

11. The binding member according to any preceding claim, wherein the binding member comprises a light chain variable sequence comprising LCDR1, LCDR2 and
5 LCDR3, wherein

LCDR1 comprises QSLLNSGNQKNY,

LCDR2 comprises WAS, and

LCDR3 comprises QNDYSSPFT; and

a heavy chain variable sequence comprising HCDR1, HCDR2 and HCDR3, wherein

10 HCDR1 comprises GFTFNTYA

HCDR2 comprises IRKSNNYAT, and

HCDR3 comprises VGYGSGGNY.

12. The binding member according to any preceding claim, wherein the binding
15 domain(s) are carried by a human antibody framework.

13. The binding member according to any preceding claim, wherein the binding member comprises a VH domain comprising residues 1 to 117 of the amino acid sequence of Figure 1a or 2a, and/or a VL domain comprising residues 1 to 114 of
20 the amino acid sequence of Figure 1b or 2b.

14. The binding member according to any preceding claim, wherein the binding member comprises a human antibody constant region.

25 15. The binding member according to any preceding claim, wherein the binding member is an antibody or an antibody fragment, Fab, (Fab')₂, scFv, Fv, dAb, Fd or a diabody.

16. The binding member according to any preceding claim, wherein the binding member is an scFv comprising, in the following order, 1) leader sequence, 2) heavy chain variable region, 3) 3x GGGGS spacer, 4) light chain variable region, and 5) poly-Ala
30 and a 6x His tag for purification.

17. The binding member according to any of claims 1 to 15, wherein the binding member is an scFv comprising, in the following order, 1) leader sequence, 2) light chain variable region, 3) 3x GGGGS spacer, and 4) heavy chain variable region, optionally further comprising either 5' or 3' purification tags.
- 5
18. The binding member according to any preceding claim, wherein the binding member is provided in the form of a chimeric antigen receptor (CAR).
19. The binding member according to claim 18, wherein the binding member is an scFv
- 10 provided in the form of a chimeric antigen receptor (CAR) either in the heavy chain-light chain orientation or the light chain-heavy chain orientation.
20. The binding member according to any preceding claim, wherein the binding member is monoclonal, such as a monoclonal antibody.
- 15
21. The binding member according to any preceding claim, wherein the binding member is a human, humanised, chimeric or veneered antibody.
22. The binding member according to any preceding claim, wherein the binding member
- 20 is a drug conjugate, such as an antibody-drug conjugate (ADC).
23. A binding member which competes for binding to the same epitope as a binding member according to any one of claims 1 to 22, and optionally wherein the binding member is in the same form as the binding member according to any of claims 1 to 22.
- 25
24. A binding member according to any preceding claim, for use as a medicament.
25. A binding member according to any of claims 1 to 23, for use in the prevention, treatment or diagnosis of cancer.
- 30
26. A method of treating or preventing cancer, comprising administering a binding member according to any of claims 1 to 23 to a subject in need of thereof.

27. The binding member for the use of claims 24 or 25, or the method of claim 26, wherein the cancer is colorectal cancer, gastric cancer, pancreatic cancer, lung cancer, ovarian cancer or breast cancer.
- 5
28. The binding member for the use of claims 24, 25 or 27, or the method of claim 26 or claim 27, wherein the binding member is administered, or arranged to be administered, alone or in combination with other treatments.
- 10
29. A nucleic acid comprising a sequence encoding a binding member according to any of claims 1-23.
30. The nucleic acid according to claim 29, wherein the nucleic acid is a construct in the form of a plasmid, vector, transcription or expression cassette.
- 15
31. A recombinant host cell which comprises the nucleic acid according to claim 29 or claim 30.
32. A method for diagnosis of cancer comprising using a binding member as claimed in any of claims 2 to 23 to detect the glycans sialyl-di-Lewis^a and sialyl-Lewis^{a-x} and/or mono-sialyl-Lewis^a only attached to a glycoprotein in a sample from an individual.
- 20
33. The method according to claim 32, wherein the pattern of glycans detected by the binding member is used to stratify therapy options for the individual.
- 25
34. A pharmaceutical composition comprising the binding member according to any of claims 1 to 23, and a pharmaceutically acceptable carrier.
35. The pharmaceutical composition according to claim 34, further comprising at least one other pharmaceutical active.
- 30

36. The pharmaceutical composition according to claim 34 or claim 35, for use in the treatment of cancer.
- 5 37. A binding member substantially as described herein, optionally with reference to the accompanying figures.