

[CLAIMS]

[Claim 1] An antibody binding to angiopoietin-2 (Ang2) or an antigen-binding fragment thereof, comprising:

- 5 a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 1, a heavy chain CDR2 of SEQ ID NO: 2, and a heavy chain CDR3 of SEQ ID NO: 3, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 4, a light chain CDR2 of SEQ ID NO: 5, and a light chain CDR3 of SEQ ID NO: 6;
- 10 a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 7, a heavy chain CDR2 of SEQ ID NO: 8, and a heavy chain CDR3 of SEQ ID NO: 9, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 10, a light chain CDR2 of SEQ ID NO: 11, and a light chain CDR3 of SEQ ID NO: 12;
- 15 a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 13, a heavy chain CDR2 of SEQ ID NO: 14, and a heavy chain CDR3 of SEQ ID NO: 15, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 16, a light chain CDR2 of SEQ ID NO: 17, and a light chain CDR3 of SEQ ID NO: 18;
- 20 a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 19, a heavy chain CDR2 of SEQ ID NO: 20, and a heavy chain CDR3 of SEQ ID NO: 21, and a light chain variable region comprising a light chain CDR1 of

SEQ ID NO: 22, a light chain CDR2 of SEQ ID NO: 23, and a light chain CDR3 of SEQ ID NO: 24;

a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 25, a heavy chain CDR2 of SEQ ID NO: 26, and a heavy chain CDR3 of SEQ

5 ID NO: 27, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 28, a light chain CDR2 of SEQ ID NO: 29, and a light chain CDR3 of SEQ ID NO: 30;

a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 13, a heavy chain CDR2 of SEQ ID NO: 14, and a heavy chain CDR3 of SEQ

10 ID NO: 51, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 16, a light chain CDR2 of SEQ ID NO: 17, and a light chain CDR3 of SEQ ID NO: 18;

a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 13, a heavy chain CDR2 of SEQ ID NO: 14, and a heavy chain CDR3 of SEQ

15 ID NO: 52, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 16, a light chain CDR2 of SEQ ID NO: 17, and a light chain CDR3 of SEQ ID NO: 18; or

a heavy chain variable region comprising a heavy chain CDR1 of SEQ ID NO: 13, a heavy chain CDR2 of SEQ ID NO: 14, and a heavy chain CDR3 of

20 SEQ ID NO: 53, and a light chain variable region comprising a light chain CDR1 of SEQ ID NO: 16, a light chain CDR2 of SEQ ID NO: 17, and a light chain CDR3 of SEQ ID NO: 18.

[Claim 2] The antibody or antigen-binding fragment thereof according to claim 1, wherein the antibody or the antigen-binding fragment thereof comprises a heavy chain variable region selected from the group consisting of SEQ ID NOS: 32, 36, 40, 44, 48, 55, 57, 59, and 61.

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[Claim 3] The antibody or antigen-binding fragment thereof according to claim 1, wherein the antibody or the antigen-binding fragment thereof comprises a light chain variable region selected from the group consisting of SEQ ID NOS: 34, 38, 42, 46, and 50.

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[Claim 4] A nucleic acid encoding the antibody or antigen-binding fragment thereof of any one of claims 1 to 3.

[Claim 5] The nucleic acid according to claim 4, wherein the nucleic acid is selected from the group consisting of SEQ ID NOS: 31, 35, 39, 43, 47, 54, 56, 58, and 60 encoding a heavy chain variable region, and the nucleic acid is selected from the group consisting of SEQ ID NOS: 33, 37, 41, 45, and 49 encoding a light chain variable region.

20 [Claim 6] An expression vector comprising the nucleic acid of claim 4.

[Claim 7] A cell transformed with the expression vector of claim 6.

[Claim 8] A method of producing an antibody binding to Ang2 or an antigen-binding fragment thereof, the method comprising the following processes:

- (a) culturing the cells of claim 7; and
- 5 (b) recovering the antibody or the antigen-binding fragment thereof from the cultured cells.

[Claim 9] Use of the antibody or an antigen-binding fragment thereof according to any one of claims 1 to 4 in the manufacture of a medicinal
10 composition for treating a disease related with angiopoietin-2 activation and/or overproduction.

[Claim 10] Use of the antibody or an antigen-binding fragment thereof according to any one of claims 1 to 3 in the manufacture of a medicinal
15 composition for inhibiting an angiogenesis.

[Claim 11] In vitro use of the antibody or an antigen-binding fragment thereof according to any one of claims 1 to 3 in the manufacture of a diagnostic
composition for diagnosing a disease related with angiopoietin-2 activation
20 and/or overproduction.

[Claim 12] Use of the antibody or an antigen-binding fragment thereof according to any one of claims 1 to 3 in the manufacture of a medicinal composition for treating an eye disease.

5 [Claim 13] Use of the antibody or an antigen-binding fragment thereof according to any one of claims 1 to 3 in the manufacture of a medicinal composition for treating tumor or cancer.

[Claim 14] Use of the antibody or an antigen-binding fragment thereof
10 according to any one of claims 1 to 3 in the manufacture of a medicinal composition for combining with other therapeutic drugs.