

CLAIM

1. A one-armed anti-human NR1 antibody selected from any of the following (~~a1~~) to (~~e5~~):

(a) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 35 of SEQ ID NO: 10, CDR2 comprising the amino acid sequences of amino acids 50 to 66 of SEQ ID NO: 10, and CDR3 comprising the amino acid sequences of amino acids 99 to 111 of SEQ ID NO: 10, a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 12, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 12, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 12;

(~~b4~~) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 26 to 34 of SEQ ID NO: 2, CDR2 comprising the amino acid sequences of amino acids 52 to 58 of SEQ ID NO: 2, and CDR3 comprising the amino acid sequences of amino acids 97 to 109 of SEQ ID NO: 2, a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 26 to 33 of SEQ ID NO: 4, CDR2 comprising the amino acid sequences of amino acids 51 to 53 of SEQ ID NO: 4, and CDR3 comprising the amino acid sequences comprising amino acids 92 to 100 of SEQ ID NO: 4;

(~~c2~~) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 35 of SEQ ID NO: 6, CDR2 comprising the amino acid sequences of amino acids 50 to 66 of SEQ ID NO: 6, and CDR3 comprising the amino acid sequences of amino acids 99 to 110 of SEQ ID NO: 6, a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 8, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 8, and CDR3 comprising the amino acid sequences of amino acids 89 to 98 of SEQ ID NO: 8;

~~(3) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 35 of SEQ ID NO: 10, CDR2 comprising the amino acid sequences of amino acids 50 to 66 of SEQ ID NO: 10, and CDR3 comprising the amino acid sequences of amino acids 99 to 111 of SEQ ID NO: 10, a light chain~~

~~variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 12, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 12, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 12;~~

(d4) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 36 of SEQ ID NO: 14, CDR2 comprising the amino acid sequences of amino acids 51 to 66 of SEQ ID NO: 14, and CDR3 comprising the amino acid sequences of amino acids 99 to 108 of SEQ ID NO: 14, a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 16, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 16, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 16;

(e5) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 36 of SEQ ID NO: 18, CDR2 comprising the amino acid sequences of amino acids 51 to 66 of SEQ ID NO: 18, and CDR3 comprising the amino acid sequences of amino acids 99 to 108 of SEQ ID NO: 18, a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 20, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 20, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 202.

2. TheA one-armed anti-human NR1 antibody according to claim 1, which is selected from any of the following (a1) to (e5):

~~(1) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 2, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 4;~~

~~(2) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 6, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 8;~~

(a3) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 10, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 12;

(b) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 2, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 4;

(c) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 6, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 8;

(d4) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequence shown in SEQ ID NO: 14, and a light chain variable region comprising the amino acid sequence shown in SEQ ID NO: 16;

(e5) a one-armed anti-human NR1 antibody comprising a heavy chain variable region comprising the amino acid sequence shown in SEQ ID NO: 18, and a light chain variable region comprising the amino acid sequence shown in SEQ ID NO: 20.

3. TheA one-armed anti-human NR1 antibody according to claim 1 or 2, further comprising an Fc region, wherein the Fc region comprises a Fc polypeptide which is selected from any of the following (1) to (5):

~~(1) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 26 to 34 of SEQ ID NO: 2, CDR2 comprising the amino acid sequences of amino acids 52 to 58 of SEQ ID NO: 2, and CDR3 comprising the amino acid sequences of amino acids 97 to 109 of SEQ ID NO: 2, a light chain comprising a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 26 to 33 of SEQ ID NO: 4, CDR2 comprising the amino acid sequences of amino acids 51 to 53 of SEQ ID NO: 4, and CDR3 comprising the amino acid sequences of amino acids 92 to 100 of SEQ ID NO: 4, and an Fc polypeptide;~~

~~(2) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 35 of SEQ ID NO: 6, CDR2 comprising the amino acid sequences of amino acids 50 to 66 of SEQ ID NO: 6, and CDR3 comprising the amino acid sequences of amino acids 99 to 110 of SEQ ID NO:~~

6, a light chain comprising a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 8, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 8, and CDR3 comprising the amino acid sequences of amino acids 89 to 98 of SEQ ID NO: 8, and an Fc polypeptide;

(3) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 35 of SEQ ID NO: 10, CDR2 comprising the amino acid sequences of amino acids 50 to 66 of SEQ ID NO: 10, and CDR3 comprising amino acid sequences of amino acids 99 to 111 of SEQ ID NO: 10, a light chain comprising a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 12, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 12, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 12, and an Fc polypeptide;

(4) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 36 of SEQ ID NO: 14, CDR2 comprising the amino acid sequences of amino acids 51 to 66 of SEQ ID NO: 14, and CDR3 comprising the amino acid sequences of amino acids 99 to 108 of SEQ ID NO: 14, a light chain comprising a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 16, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 16, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 16, and an Fc polypeptide;

(5) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 31 to 36 of SEQ ID NO: 18, CDR2 comprising the amino acid sequences of amino acids 51 to 66 of SEQ ID NO: 18, and CDR3 comprising the amino acid sequences of amino acids 99 to 108 of SEQ ID NO: 18, a light chain comprising a light chain variable region comprising CDR1 comprising the amino acid sequences of amino acids 24 to 34 of SEQ ID NO: 20, CDR2 comprising the amino acid sequences of amino acids 50 to 56 of SEQ ID NO: 20, and CDR3 comprising the amino acid sequences of amino acids 89 to 97 of SEQ ID NO: 20, and an Fc polypeptide.

4. —A one-armed anti-human NR1 antibody according to claim 3, which is selected from any of the following (1) to (5):

~~(1) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 2, a light chain comprising a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 4, and an Fc polypeptide;~~

~~(2) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 6, a light chain comprising a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 8, and an Fc polypeptide;~~

~~(3) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 10, a light chain comprising a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 12, and an Fc polypeptide;~~

~~(4) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 14, a light chain comprising a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 16, and an Fc polypeptide;~~

~~(5) a one-armed anti-human NR1 antibody comprising a heavy chain comprising a heavy chain variable region comprising the amino acid sequences shown in SEQ ID NO: 18, a light chain comprising a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 20, and an Fc polypeptide.~~

45. ~~The~~A one-armed anti-human NR1 antibody according to any one of claims 1 to 34, wherein the~~which comprises an~~ Fc region comprisesing a LALA mutations (L234A and L235A), according to Eu numbering.

56. ~~The~~A one-armed anti-human NR1 antibody according to any one of claims 1 to 34, wherein~~which the~~comprises an Fc region comprisesing a Knobs-into-holes mutation.

67. ~~The~~A one-armed anti-human NR1 antibody according to any one of claims 1 to 34, wherein~~which comprises an the~~ Fc region comprisesing a LALA mutation (L234A and L235A), according to Eu numbering, and a Knobs-into-holes mutation.

8. ~~A one-armed anti-human NR1 antibody.~~

~~79.~~ ~~The~~A one-armed anti-human NR1 antibody according to any one of claims 1 to ~~68~~,
~~which wherein the one-armed anti-human NR1 antibody~~ is a human antibody or a humanized
antibody.

~~810.~~ A one-armed anti-human NR1 antibody comprising:

~~(a) a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, a light
chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an Fc polypeptide
comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(b) a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, a light
chain comprising the amino acid sequences shown in SEQ ID NO: 24, and an Fc polypeptide
comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~11. — A one armed anti human NR1 antibody comprising (c) a heavy chain comprising the amino
acid sequences shown in SEQ ID NO: 26, a light chain comprising the amino acid sequences shown
in SEQ ID NO: 28, and an Fc polypeptide comprising the amino acid sequences shown in SEQ ID
NO: 42;~~

~~12. — A one armed anti human NR1 antibody comprising a heavy chain comprising the amino acid
sequences shown in SEQ ID NO: 30, a light chain comprising the amino acid sequences shown in
SEQ ID NO: 32, and an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO:
42.~~

~~13. — A one armed anti human NR1 antibody comprising (d) a heavy chain comprising the amino
acid sequences shown in SEQ ID NO: 34, a light chain comprising the amino acid sequences shown
in SEQ ID NO: 36, and an Fc polypeptide comprising the amino acid sequences shown in SEQ ID
NO: 42;~~ or

~~14. — A one armed anti human NR1 antibody comprising (e) a heavy chain comprising the amino
acid sequences shown in SEQ ID NO: 38, a light chain comprising the amino acid sequences shown
in SEQ ID NO: 40, and an Fc polypeptide comprising the amino acid sequences shown in SEQ ID
NO: 42.~~

~~915.~~ A one-armed anti-human NR1 antibody that binds to human NR1 competitively with an anti-
human NR1 antibody and inhibits the intracellular internalization of NMDAR by a patient-derived
pathogenic anti-human NR1 antibody from Anti-NMDAR encephalitis comprising a heavy chain

variable region comprising the amino acid sequences shown in SEQ ID NO: 2, and a light chain variable region comprising the amino acid sequences shown in SEQ ID NO: 4.

1046. ~~The~~A one-armed anti-human NR1 antibody according to any one of claims 1 to 945, which is produced by post-translational modification.

1147. ~~The~~A one-armed anti-human NR1 antibody according to claim 1046, wherein the post-translational modification is polyglutamylation at the N-terminal of the heavy chain and/or deletion of the lysine at the C-terminal of the heavy chain.

1248. A polynucleotide comprising the nucleotide sequence of any one of claims 1-11 described in (a) and/or (b) below:

~~(a) a polynucleotide comprising the nucleotide sequence encoding the heavy chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5);~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding the light chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5).~~

~~19. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5);~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5).~~

~~20. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26;~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28.~~

~~21. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30;~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32.~~

~~22. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34;~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36.~~

~~23. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38;~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40.~~

~~24. — A polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15;~~

~~(b) a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15.~~

1325. An expression vector comprising thea polynucleotide of claim 12~~comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5);~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5).~~

~~26. — An expression vector comprising a polynucleotide comprising the nucleotide sequence described in (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5);~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one armed anti human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5).~~

~~27. —The expression vector according to claim 25 or 26, further comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide.~~

~~28. —An expression vector comprising a polynucleotide set forth in (a) and/or (b) below, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24.~~

~~29. —An expression vector comprising a polynucleotide according to (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28.~~

~~30. —An expression vector comprising a polynucleotide according to (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32.~~

~~31. —An expression vector comprising a polynucleotide according to (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36.~~

~~32. —An expression vector comprising a polynucleotide according to (a) and/or (b) below:~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequence shown in SEQ ID NO: 40.~~

~~33. — The expression vector according to any one of claims 29 to 32, further comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.~~

~~34. — An expression vector comprising a polynucleotide comprising the nucleotide sequence according to the following (a) to (f):~~

~~(a) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15;~~

~~(b) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15;~~

~~(c) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody;~~

~~(d) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(e) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(f) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody.~~

~~1435. Host cells transformed with thean expression vector of claim 13selected from the following (a) to (d):~~

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5);~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5);~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain variable region of the antibody;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain variable region of the one-armed anti-human NR1 antibody according to any one of claims 1 (2) to (5) and claim 2 (2) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain variable region of the antibody.~~

~~36. — Host cells transformed with an expression vector selected from the following (a) to (d):~~

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5);~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5);~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (2) to (5) and claim 4 (2) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody.~~

~~37. Host cells transformed with an expression vector selected from the following (a) to (i):~~

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody~~

according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;

~~(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody;~~

~~(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to any one of claims 3 (1) to (5) and claim 4 (1) to (5), an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and a polynucleotide comprising a nucleotide sequence encoding the Fc polypeptide of the antibody.~~

38. — Host cells transformed with an expression vector selected from the following (a) to (i):

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequence shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24;~~

~~(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding a light chain~~

comprising the amino acid sequences shown in SEQ ID NO: 24, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

~~(i) an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 22, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 24, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.~~

39. — Host cells transformed with an expression vector selected from the following (a) to (m):

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28;~~

~~(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ~~

ID NO: 28, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(j) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28;

(k) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

~~(l) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(m) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 26, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 28, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.~~

~~40. — Host cells transformed with an expression vector selected from the following (a) to (m):~~

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and an expression vector comprising a polynucleotides comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32;~~

~~(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ~~

ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(j) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32;

(k) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ

ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(l) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(m) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 30, a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 32, and an expression vector comprising polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.

41. — Host cells transformed with an expression vector selected from the following (a) to (m):

(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34;

(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36;

(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36;

(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ

ID NO: 34, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36;

(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(j) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42, and an expression vector

~~comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36;~~

~~(k) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(l) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(m) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 34, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 36, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.~~

~~42. —Host cells transformed with an expression vector selected from the following (a) to (m):~~

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ~~

ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40;

(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40;

(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;

~~(j) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40;~~

~~(k) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(l) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42;~~

~~(m) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a heavy chain comprising the amino acid sequences shown in SEQ ID NO: 38, and a polynucleotide comprising the nucleotide sequence encoding a light chain comprising the amino acid sequences shown in SEQ ID NO: 40, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide comprising the amino acid sequences shown in SEQ ID NO: 42.~~

43. — Host cells transformed with an expression vector selected from the following (a) to (m):

~~(a) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15;~~

~~(b) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15;~~

~~(c) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody;~~

~~(d) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody;~~

~~(e) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(f) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(g) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(h) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the one-armed anti-human NR1 antibody according to claim 15, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;~~

~~(i) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, a polynucleotide comprising the nucleotide sequence encoding the light chain~~

of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide;

(j) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding a light chain of the antibody;

(k) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, and a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide;

(l) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the Fc polypeptide of the antibody;

(m) host cells transformed with an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding the heavy chain of the one-armed anti-human NR1 antibody according to claim 15, a polynucleotide comprising the nucleotide sequence encoding the light chain of the antibody, and an expression vector comprising a polynucleotide comprising the nucleotide sequence encoding an Fc polypeptide of the antibody.

1544. A method for producing a one-armed anti-human NR1 antibody, which comprises a step of culturing the host cells according to ~~any one of claims 1435 to 43~~ to express a polypeptide constituting the one-armed anti-human NR1 antibody.

1645. A pharmaceutical composition comprising the one-armed anti-human NR1 antibody according to any one of claims 1 to ~~1147~~ and a pharmaceutically acceptable excipient.

~~46. — The pharmaceutical composition according to claim 45, which is a pharmaceutical composition for treating anti-NMDAR encephalitis.~~

~~47. — A method for treating anti-NMDAR encephalitis, which comprises the step of administering a therapeutically effective amount of an one-armed anti-human NR1 antibody according to any one of claims 1 to 17.~~

~~1748. Use of the~~An one-armed anti-human NR1 antibody according to any one of claims 1 to ~~11~~17
~~or the pharmaceutical composition according to claim 16 in the manufacture of a medicament for use~~
~~in~~ the treatment of anti-NMDAR encephalitis.

~~1849. The~~~~Use of an~~ one-armed anti-human NR1 antibody according to any one of claims 1 to ~~1~~17
~~or the pharmaceutical composition according to claim 16 in the production of a pharmaceutical~~
~~composition for use in therapy~~the treatment of anti-NMDAR encephalitis.