

Claims:

[Claim 1]. An antigen-binding molecule which binds to CD47, comprising: (a)

- 5 (i) a heavy chain variable (VH) region incorporating the following CDRs:
HC-CDR1 having the amino acid sequence of SEQ ID NO:137
HC-CDR2 having the amino acid sequence of SEQ ID NO:138
HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and
(ii) a light chain variable (VL) region incorporating the following CDRs:
10 LC-CDR1 having the amino acid sequence of SEQ ID NO:32
LC-CDR2 having the amino acid sequence of SEQ ID NO:33
LC-CDR3 having the amino acid sequence of SEQ ID NO:34;
or
(b)
15 (i) a heavy chain variable (VH) region incorporating the following CDRs:
HC-CDR1 having the amino acid sequence of SEQ ID NO:24
HC-CDR2 having the amino acid sequence of SEQ ID NO:25
HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and
(ii) a light chain variable (VL) region incorporating the following CDRs:
20 LC-CDR1 having the amino acid sequence of SEQ ID NO:32
LC-CDR2 having the amino acid sequence of SEQ ID NO:33
LC-CDR3 having the amino acid sequence of SEQ ID NO:34;
or
(c)
25 (i) a heavy chain variable (VH) region incorporating the following CDRs:
HC-CDR1 having the amino acid sequence of SEQ ID NO:24
HC-CDR2 having the amino acid sequence of SEQ ID NO:25
HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and
(ii) a light chain variable (VL) region incorporating the following CDRs:
30 LC-CDR1 having the amino acid sequence of SEQ ID NO:139
LC-CDR2 having the amino acid sequence of SEQ ID NO:141
LC-CDR3 having the amino acid sequence of SEQ ID NO:34;
or
(d)
35 (i) a heavy chain variable (VH) region incorporating the following CDRs:
HC-CDR1 having the amino acid sequence of SEQ ID NO:137
HC-CDR2 having the amino acid sequence of SEQ ID NO:138
HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and
(ii) a light chain variable (VL) region incorporating the following CDRs:
40 LC-CDR1 having the amino acid sequence of SEQ ID NO:139
LC-CDR2 having the amino acid sequence of SEQ ID NO:141
LC-CDR3 having the amino acid sequence of SEQ ID NO:34;

or

(e)

(i) a heavy chain variable (VH) region incorporating the following CDRs:

HC-CDR1 having the amino acid sequence of SEQ ID NO:24

HC-CDR2 having the amino acid sequence of SEQ ID NO:25

HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and

(ii) a light chain variable (VL) region incorporating the following CDRs:

LC-CDR1 having the amino acid sequence of SEQ ID NO:140

LC-CDR2 having the amino acid sequence of SEQ ID NO:141

LC-CDR3 having the amino acid sequence of SEQ ID NO:34;

or

(f)

(i) a heavy chain variable (VH) region incorporating the following CDRs:

HC-CDR1 having the amino acid sequence of SEQ ID NO:137

HC-CDR2 having the amino acid sequence of SEQ ID NO:138

HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and

(ii) a light chain variable (VL) region incorporating the following CDRs:

LC-CDR1 having the amino acid sequence of SEQ ID NO:140

LC-CDR2 having the amino acid sequence of SEQ ID NO:141

LC-CDR3 having the amino acid sequence of SEQ ID NO:34;

or

(g)

(i) a heavy chain variable (VH) region incorporating the following CDRs:

HC-CDR1 having the amino acid sequence of SEQ ID NO:137

HC-CDR2 having the amino acid sequence of SEQ ID NO:138

HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and

(ii) a light chain variable (VL) region incorporating the following CDRs:

LC-CDR1 having the amino acid sequence of SEQ ID NO:32

LC-CDR2 having the amino acid sequence of SEQ ID NO:141

LC-CDR3 having the amino acid sequence of SEQ ID NO:34;

or

(h)

(i) a heavy chain variable (VH) region incorporating the following CDRs:

HC-CDR1 having the amino acid sequence of SEQ ID NO:137

HC-CDR2 having the amino acid sequence of SEQ ID NO:138

HC-CDR3 having the amino acid sequence of SEQ ID NO:26; and

(ii) a light chain variable (VL) region incorporating the following CDRs:

LC-CDR1 having the amino acid sequence of SEQ ID NO:32

LC-CDR2 having the amino acid sequence of SEQ ID NO:33

LC-CDR3 having the amino acid sequence of SEQ ID NO:142.

[Claim 2]. The antigen-binding molecule according to claim 1, wherein the antigen-binding molecule comprises:

a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:23, 39, 127, 129, 130, 131 or 132; and

5 a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:31, 44, 128, 133, 134, 135 or 136.

[Claim 3]. The antigen-binding molecule according to claim 1, wherein the antigen-binding molecule comprises:

10 (i) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:23; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:31;

or

15 (ii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:39; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:44;

or

20 (iii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:127; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:128;

or

25 (iv) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:129; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:128;

or

30 (v) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:130; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:128;

or

35 (vi) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:131; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:128;

or

40 (vii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:132; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:128;

or

(viii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:131; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:133;

or

(ix) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:132; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:133;

or

(x) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:131; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:134;

or

(xi) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:132; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:134;

or

(xii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:132; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:135;

or

(xiii) a VH region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:132; and

a VL region comprising an amino acid sequence having at least 70% sequence identity to the amino acid sequence of SEQ ID NO:136.

[Claim 4]. The antigen-binding molecule according to claim 1, wherein the antigen-binding molecule inhibits interaction between CD47 and SIRP α .

[Claim 5]. The antigen-binding molecule according to claim 1, wherein the antigen-binding molecule is a multispecific antigen-binding molecule, and further comprises an antigen-binding domain specific for a target antigen other than CD47.