

In another aspect, there is provided the anti-PD1 antibody molecule as defined herein for use in treating cancer.

5 In another aspect, there is provided the anti-PD1 antibody molecule as defined herein for use in treating cancer, wherein ~~the use further comprises~~ an anti-LAG3 antibody molecule is to be further administered.

In another aspect, there is provided a pharmaceutical composition comprising an anti-PD1 antibody as defined herein and a pharmaceutically acceptable carrier.

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In another aspect, there is provided a kit of parts comprising an anti-PD1 antibody as defined herein and an anti-LAG3 antibody molecule.

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In another aspect, there is provided use of the anti-PD1 antibody molecule as defined herein in ~~preparing a pharmaceutical composition~~ the preparation of a medicament for treating cancer.

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There is also provided anti-LAG3 antibody molecules. As described further herein, the anti-LAG3 antibody molecules of the present disclosure have surprising and advantageous properties over other anti-LAG3 antibody molecules. In particular, they demonstrate improved activation of T cells when used in combination with the anti-PD1 antibody molecules of the present disclosure than reference anti-PD1 antibody molecules and anti-LAG3 antibody molecules. As will be appreciated, such

CLAIMS

1. An anti-PD1 antibody molecule comprising:

- 5 (a) a heavy chain variable region having three CDRs comprising the amino acid sequence of SEQ ID NO:1 (hcCDR1), SEQ ID NO:2 (hcCDR2) and SEQ ID NO:3 (hcCDR3) and a light chain variable region having three light chain CDRs comprising the amino acid sequence of SEQ ID NO:4 (lcCDR1), SEQ ID NO:5 (lcCDR2) and SEQ ID NO:6 (lcCDR3); or,
- 10 (b) a heavy chain variable region having three CDRs comprising the amino acid sequence of SEQ ID NO:7 (hcCDR1), SEQ ID NO:8 (hcCDR2) and SEQ ID NO:9 (hcCDR3) and a light chain variable region having three light chain CDRs comprising the amino acid sequence of SEQ ID NO:10 (lcCDR1), SEQ ID NO:11 (lcCDR2) and SEQ ID NO:12 (lcCDR3); or,
- 15 (c) a heavy chain variable region having three CDRs comprising the amino acid sequence of SEQ ID NO:13 (hcCDR1), SEQ ID NO:14 (hcCDR2) and SEQ ID NO:15 (hcCDR3) and a light chain variable region having three light chain CDRs comprising the amino acid sequence of SEQ ID NO:16 (lcCDR1), SEQ ID NO:17 (lcCDR2) and SEQ ID NO:18 (lcCDR3).

20 2. The anti-PD1 antibody molecule of claim 1 wherein said antibody molecule has

a heavy chain variable domain comprising the amino acid sequence of SEQ ID NO: 19 and a light chain variable domain comprising the amino acid sequence of SEQ ID NO: 20, or

25 a heavy chain variable domain comprising the amino acid sequence of SEQ ID NO: 21 and a light chain variable domain comprising the amino acid sequence of SEQ ID NO: 22, or

a heavy chain variable domain comprising the amino acid sequence of SEQ ID NO: 23 and a light chain variable domain comprising the amino acid sequence of
30 SEQ ID NO: 24, or

a heavy chain variable domain comprising the amino acid sequence of SEQ ID NO: 25 and a light chain variable domain comprising the amino acid sequence of SEQ ID NO: 26, or

5 a heavy chain variable domain comprising the amino acid sequence of SEQ ID NO: 27 and a light chain variable domain comprising the amino acid sequence of SEQ ID NO: 28.

3. The anti-PD1 antibody molecule of any of the previous claims wherein said antibody molecule has

10 a heavy chain comprising the amino acid sequence of SEQ ID NO: 29 and a light chain comprising the amino acid sequence of SEQ ID NO: 30 or

a heavy chain comprising the amino acid sequence of SEQ ID NO: 31 and a light chain comprising the amino acid sequence of SEQ ID NO: 32, or

15 a heavy chain comprising the amino acid sequence of SEQ ID NO: 33 and a light chain comprising the amino acid sequence of SEQ ID NO: 34, or

a heavy chain comprising the amino acid sequence of SEQ ID NO: 35 and a light chain comprising the amino acid sequence of SEQ ID NO: 36, or

a heavy chain comprising the amino acid sequence of SEQ ID NO: 37 and a light chain comprising the amino acid sequence of SEQ ID NO: 38.

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4. An isolated nucleic acid molecule encoding a heavy chain of an antibody molecule of any one of claims 1 to 3, and a light chain of an antibody molecule of any of claims 1 to 3.

25 5. An expression vector containing a nucleic acid molecule encoding a heavy chain of an antibody molecule of any one of claims 1 to 3, and a light chain of an antibody molecule of any one of claims 1 to 3.

6. A host cell having an expression vector encoding a heavy chain of an antibody molecule of any one of claims 1 to 3, and an expression vector encoding
30 a light chain of an antibody molecule of any one of claims 1 to 3.

7. The anti-PD1 antibody molecule of any of claims 1 to 3 for use in medicine.

8. The anti-PD1 antibody molecule of any of claims 1 to 3 for use in treating cancer.

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9. The anti-PD1 antibody molecule of any of claims 1 to 3 for use in treating cancer, wherein ~~the use further comprises~~ an anti-LAG3 antibody molecule is to be further administered.

10 10. A pharmaceutical composition comprising an anti-PD1 antibody of any of claims 1 to 3 and a pharmaceutically acceptable carrier.

11. The pharmaceutical composition of claim 10 further comprising an anti-LAG3 antibody molecule.

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12. A kit of parts comprising an anti-PD1 antibody of any of claims 1 to 3 and an anti-LAG3 antibody molecule.

13. The anti-PD1 antibody molecule for use of claim 9, the composition of
20 claim 11 or the kit of claim 12 wherein said anti-LAG3 antibody molecule binds an epitope of human LAG3 comprising the amino acid sequence LLRRAGVT (SEQ ID NO: 111) and/or YRAAVHLRDRA (SEQ ID NO: 112).

14. The anti-PD1 antibody molecule for use according to claim 12, or the
25 composition or kit according to claim 12, wherein said anti-LAG3 antibody molecule comprises:

(a) heavy chain CDRs comprising the amino acid sequence of SEQ ID NO:39 (hcCDR1), SEQ ID NO:40 (hcCDR2) and SEQ ID NO:41 (hcCDR3) and has light chain CDRs comprising the amino acid sequence of SEQ ID NO:42
30 (lcCDR1), SEQ ID NO:43 (lcCDR2) and SEQ ID NO:44 (lcCDR3);or,

(b) heavy chain CDRs comprising the amino acid sequence of SEQ ID NO:45 (hcCDR1), SEQ ID NO:46 (hcCDR2) and SEQ ID NO:47 (hcCDR3) and

has light chain CDRs comprising the amino acid sequence of SEQ ID NO:48 (lcCDR1), SEQ ID NO:49 (lcCDR2) and SEQ ID NO:50 (lcCDR3).

15. Use of the anti-PD1 antibody molecule of any of claims 1 to 3 in ~~preparing~~
5 ~~a pharmaceutical composition~~ the preparation of a medicament for treating cancer.

16. The use of claim 15 further comprising an anti-LAG3 antibody molecule.

17. The anti-PD1 antibody molecule for use of any one of claims 9, 13 or 14 or
10 use of claim 16 wherein the anti-PD1 antibody molecule is to be administered simultaneously, concurrently, sequentially, successively, alternatively or separately, with the anti-LAG3 antibody molecule.

~~18. The pharmaceutical composition of any one of claims 11, 13 or 14 wherein~~
15 ~~the anti-PD1 antibody molecule is selected from the group consisting of anti-PD1 antibody molecules PD1-1, PD1-2, PD1-3, PD1-4, and PD1-5, and the anti-LAG3 antibody molecule selected from the group consisting of anti-LAG3 antibody molecules LAG3-1, LAG3-2, LAG3-3, LAG3-4, and LAG3-5.~~

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