

Claims:

1. A bispecific antibody or bispecific antigen binding fragment, optionally isolated, which is capable of binding to CD122 and common γ chain (γ c), wherein the bispecific antibody or bispecific antigen binding fragment is an IL-2 receptor agonist, and
5 comprises:

(a) an antigen-binding fragment which binds to CD122, comprising:

(i) a light chain variable region comprising the following CDRs:

LC-CDR1: TGTSSDIGHYDFVS (SEQ ID NO:2)

LC-CDR2: DINNRPS (SEQ ID NO:3)

10 LC-CDR3: SAYTSSDTLV (SEQ ID NO:4); and

(ii) a heavy chain variable region comprising the following CDRs:

HC-CDR1: NYVMH (SEQ ID NO:36)

HC-CDR2: AIMPSRGGTSYPQKFQG (SEQ ID NO:37)

HC-CDR3: GEYYDSSGYYY (SEQ ID NO:38); and

15 (b) an antigen-binding fragment which binds to common γ chain.

2. The bispecific antibody or bispecific antigen binding fragment according to claim 1, wherein the antigen-binding fragment which binds to CD122 comprises a light chain variable region sequence and a heavy chain variable region sequence, wherein:

20 the light chain variable region sequence has at least 70% sequence identity to the light chain variable region sequence of SEQ ID NO:1, and

the heavy chain variable region sequence has at least 70% sequence identity to the heavy chain variable region sequence of SEQ ID NO:35.

25 3. The bispecific antibody or bispecific antigen binding fragment according to claim 1 or claim 2, wherein the antigen-binding fragment which binds to common γ chain comprises a light chain variable region sequence and a heavy chain variable region sequence, wherein the light chain variable region sequence has at least 70% sequence identity to the light chain variable region sequence of SEQ ID NO:67.

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4. The bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 3, wherein the antigen-binding fragment which binds to common γ chain comprises:

(i) a light chain variable region comprising the following CDRs:

35 LC-CDR1: RSSQSLLHSNGYNYLD (SEQ ID NO:68)

LC-CDR2: LGSNRDS (SEQ ID NO:69)

LC-CDR3: MQGTHWPWT (SEQ ID NO:70); and

(ii) a heavy chain variable region comprising the following CDRs:

HC-CDR1: GYYWS (SEQ ID NO:48)

HC-CDR2: EINHSGSTNYPNPSLKS (SEQ ID NO:49)

5 HC-CDR3: SPGGYSGGYFQH (SEQ ID NO:77).

5. The bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 4, wherein the antigen-binding fragment which binds to common γ chain comprises a light chain variable region sequence and a heavy chain variable region sequence, wherein:

10 the light chain variable region sequence has at least 70% sequence identity to the light chain variable region sequence of SEQ ID NO:67, and

the heavy chain variable region sequence has at least 70% sequence identity to the heavy chain variable region sequence of SEQ ID NO:76.

15 6. The bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 5, conjugated to a drug moiety or a detectable moiety.

7. A chimeric antigen receptor (CAR) comprising a bispecific antigen binding fragment according to any one of claims 1 to 5.

8. A cell comprising a chimeric antigen receptor (CAR) according to claim 7.

9. A composition comprising the bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, the chimeric antigen receptor (CAR) according to claim 7, or the cell according to claim 8, and at least one pharmaceutically-acceptable carrier.

10. An isolated nucleic acid encoding the bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, or the chimeric antigen receptor (CAR) according to claim 7.

11. A vector comprising the isolated nucleic acid of claim 10.

12. A host cell comprising the vector of claim 11.

13. A method for making a bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, comprising culturing the host cell of claim 12 under conditions suitable for the expression of the vector encoding the bispecific antibody or bispecific antigen binding fragment.

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14. A bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, a chimeric antigen receptor (CAR) according to claim 7, a cell according to claim 8, or a composition according to claim 9, for use in therapy, or in a method of medical treatment.

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15. A bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, a chimeric antigen receptor (CAR) according to claim 7, a cell according to claim 8, or a composition according to claim 9, for use in the treatment of cancer or an infectious disease.

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16. A method comprising contacting, *in vitro*, a sample containing, or suspected to contain, CD122 and/or common γ chain (γ c) with a bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, a chimeric antigen receptor (CAR) according to claim 7, a cell according to claim 8, or a composition according to claim 9, and detecting the formation of a complex of the bispecific antibody or bispecific antigen binding fragment, CAR or cell with CD122 and/or γ c.

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17. Use of a bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, a chimeric antigen receptor (CAR) according to claim 7, a cell according to claim 8, or a composition according to claim 9, for the detection of CD122 and/or common γ chain (γ c) *in vitro*.

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18. A method for expanding a population of T cells and/or NK cells expressing CD122 and common γ chain (γ c), wherein the T cells and/or NK cells are contacted *in vitro* or *ex vivo* with a bispecific antibody or bispecific antigen binding fragment according to any one of claims 1 to 6, a chimeric antigen receptor (CAR) according to claim 7, a cell according to claim 8, or a composition according to claim 9.

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