

CLAIMS

1. Use of an antibody that binds and neutralizes the inhibitory activity of NKG2A (anti-NKG2A antibody) in the preparation of a medicament for the treatment of cancer in an individual, in which the antibody is to be administered to the individual for at least one administration cycle, in which 2 to 8 doses of between 4-10 or 10 mg/kg body weight of the anti-NKG2A antibody are to be administered once every two weeks intravenously, in which the antibody comprises the VH CDRs of a heavy chain comprising an amino acid sequence of any one of SEQ ID NO: 2-6 and the VL CDRs of the light chain comprising the amino acid sequence of SEQ ID NO: 7 respectively.
2. Use according to Claim 1, in which the administration cycle comprises a first loading dose of 10 mg/kg body weight followed by subsequent maintenance doses of 4 mg/kg body weight.
3. Use according to Claim 1 or 2, in which the administration cycle is 8 weeks.
4. Use according to Claim 1, 2 or 3, in which the administration cycle comprises 4 administrations of the anti-NKG2A antibody.
5. Use according to any preceding claim, in which the individual has a hematological tumor.
6. Use according to Claim 5, in which the hematological tumor is selected from the group consisting of leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, acute lymphoblastic leukemia, B-cell lymphoma, T-cell lymphoma, Hodgkin's lymphoma, non-Hodgkin's lymphoma, hairy cell lymphoma, Burkitt lymphoma, multiple myeloma, acute myelogenous leukemia, chronic myelogenous leukemia, promyelocytic leukemia and myelodysplastic syndrome.
7. Use according to any one of Claims 1 to 4, in which the individual has a solid tumor.
8. Use according to Claim 7, in which the individual has a HNSCC.
9. Use according to Claim 7, in which the individual has lung cancer.
10. Use according to any preceding claim, in which the antibody competes with HLA-E for binding to NKG2A.

11. Use according to any preceding claim, in which the antibody has a K_D of between 10^{-10} M and 10^{-12} M for binding to a recombinant soluble NKG2A polypeptide, as assessed by surface plasmon resonance.
12. Use according to any preceding claim, in which the antibody comprises a human IgG4 constant region, in which the antibody comprises an Fc- engineered constant region comprising an amino acid modification that reduces binding to a human Fc γ receptor.
13. Use according to Claim 12, in which the antibody fragment is from the group consisting of a Fab fragment, a Fab' fragment, a Fab'-SH fragment, a F(ab)² fragment, a F(ab')² fragment and a single-chain antibody fragment.
- 10 14. Use according to any preceding claim, in which the antibody comprises a heavy chain comprising an amino acid sequence of any one of SEQ ID NO: 2-6 and a light chain comprising the amino acid sequence of SEQ ID NO: 7.
- 15 15. Use according to any preceding claim, in which the antibody comprises a heavy chain comprising the amino acid sequence of SEQ ID NO: 3 and a light chain comprising the amino acid sequence of SEQ ID NO: 7.
16. Use according to Claim 1, in which the antibody is to be administered at a dose of between 6-10 mg/kg body weight.
17. Use according to Claim 1, in which the anti-NKG2A antibody is to be administered as a pharmaceutically acceptable composition comprising a therapeutically effective amount of the anti-NKG2A antibody.
- 20 18. Use according to Claim 17, in which the composition is free of any other pharmaceutically active agents.