Patent Claims

1. An isolated antibody that binds to human LAG3, wherein the antibody comprises

(a) a VH domain comprising (i) HVR-H1 comprising the amino acid sequence of SEQ ID NO:1, (ii) HVR-H2 comprising the amino acid sequence of SEQ ID NO:2, and (iii) HVR-H3 comprising an amino acid sequence selected from SEQ ID NO:3; and (b) a VL domain comprising (i) HVR-L1 comprising the amino acid sequence of SEQ ID NO:4; (ii) HVR-L2 comprising the amino acid sequence of SEQ ID NO:5 and (iii) HVR-L3 comprising the amino acid sequence of SEQ ID NO:6.

2. The antibody according to claim 1, wherein the antibody comprises a VH sequence of SEQ ID NO:7 and a VL sequence of SEQ ID NO:8.

3. The antibody according to any one of claims 1 or 2, wherein the antibody:

i) binds to a human and cynomolguoes LAG3; and/ or

ii) inhibits binding of MHC-II expressed on human A375 tumor cells; and/ or

iii) enhances granzyme B or IL-2 release in a mixed lymphocyte reaction (mMLR) assay.

4. The antibody according to any of the preceding claims, which is a human, humanized, or chimeric antibody.

5. The antibody according to any one of the preceding claims, which is a full length IgG1 antibody with mutations L234A, L235A and P329G (numbering according to the EU index of Kabat).

6. Isolated nucleic acid encoding the antibody according to any one of the preceding claims.

7. A host cell comprising the nucleic acid of claim 6.

8. A method of producing an antibody comprising culturing the host cell of claim 7 so that the antibody is produced.

9. The method of claim 8; further comprising recovering the antibody from the host cell.

10. A pharmaceutical formulation comprising the antibody according any one of claims 1 to 5 and a pharmaceutically acceptable carrier.

11. The antibody according any one of claims 1 to 5 for use in treating cancer.

12. The antibody according any one of claims 1 to 5 for use as a medicament.

13. Use of the antibody according any one of claims 1 to 5 in the manufacture of a medicament for treatment of cancer.