Claims

1. Use of an anti-CD38 antibody and a survivin inhibitor each in the manufacture of a medicament for the treatment of a subject having a CD38-positive hematological malignancy.

2. The use of claim 1, wherein the CD38-positive hematological malignancy is multiple myeloma (MM), acute lymphoblastic leukemia (ALL), non-Hodgkin's lymphoma (NHL), diffuse large B-cell lymphoma (DLBCL), Burkitt's lymphoma (BL), follicular lymphoma (FL), mantle-cell lymphoma (MCL), acute myeloid leukemia (AML) or chronic lymphocytic leukemia (CLL).

3. The use of claim 1, wherein the CD38-positive hematological malignancy is a plasma cell disease.

4. The use of claim 3, wherein the plasma cell disease is light chain amyloidosis (AL), multiple myeloma (MM) or Waldenstrom's macroglobulinemia.

5. The use of claim 4, wherein the plasma cell disease is MM.

6. The use of any of the claims 1-5, wherein the anti-CD38 antibody competes for binding to CD38 with an antibody comprising a heavy chain variable region (VH) of SEQ ID NO: 4 and a light chain variable region (VL) of SEQ ID NO: 5.

7. The use of claim 6, wherein the anti-CD38 antibody binds to the region SKRNIQFSCKNIYR (SEQ ID NO: 2) and the region EKVQTLEAWVIHGG (SEQ ID NO: 3) of human CD38 (SEQ ID NO: 1).

8. The use of claim 7, wherein the anti-CD38 antibody comprises a heavy chain complementarity determining region (HCDR) 1, a HCDR2 and a HCDR3 sequences of SEQ ID NOs: 6, 7 and 8, respectively, and a light chain

complementarity determining region (LCDR) 1, a LCDR2 and a LCDR3 sequences of SEQ ID NOs: 9, 10 and 11, respectively.

9. The use of claim 8, wherein the anti-CD38 antibody comprises the VH comprising an amino acid sequence that is 95%, 96%, 97%, 98%, 99% or 100% identical to that of SEQ ID NO: 4 and the VL comprising an amino acid sequence that is 95%, 96%, 97%, 98%, 99% or 100% identical to that of SEQ ID NO: 5.

10. The use of claim 9, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.

11. The use of claim 10, wherein the anti-CD38 antibody is of IgG1, IgG2, IgG3 or IgG4 isotype.

12. The use of claim 11, wherein the anti-CD38 antibody is of IgG1 isotype.

13. The use of claim 12, wherein the anti-CD38 antibody induces CD38-positive cell killing by antibody-dependent cellular cytotoxicity (ADCC), antibody-dependent cellular phagocytosis (ADCP), complement-dependent cytotoxicity (CDC) or apoptosis.

14. The use of claim 1 or 3, wherein the anti-CD38 antibody comprises the HCDR1, the HCDR2, the HCDR3, the LCDR1, the LCDR2 and the LCDR3 of:
the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;
the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or
the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.

15. The use of claim 14, wherein the anti-CD38 antibody comprises:
the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;
the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or

the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.

16. The use of claim 1, wherein the survivin inhibitor is a small molecule, a polynucleotide or a vaccine.

17. The use of claim 16, wherein the small molecule is YM155.

18. The use of claim 1, wherein the anti-CD38 antibody and the survivin inhibitor in the form of the medicament are to be administered simultaneously, sequentially or separately.

19. The use of claim 18, wherein the anti-CD38 antibody in the form of the medicament is to be administered intravenously.

20. The use of claim 18, wherein the anti-CD38 antibody in the form of the medicament is to be administered subcutaneously in a pharmaceutical composition comprising the anti-CD38 antibody and a hyaluronidase.

21. The use of claim 20, wherein the hyaluronidase is rHuPH20 of SEQ ID NO: 23.