

Claims

1. A pharmaceutical combination comprising:

i) an isolated antibody molecule capable of binding to a human Programmed Death-1 (PD-1)

comprising a heavy chain variable region (VH) comprising a VHCDR1 amino acid sequence of SEQ ID NO: 21; a VHCDR2 amino acid sequence of SEQ ID NO: 22; and a VHCDR3 amino acid sequence of SEQ ID NO: 23; and a light chain variable region (VL) comprising a VLCDR1 amino acid sequence of SEQ ID NO: 26, a VLCDR2 amino acid sequence of SEQ ID NO: 27, and a VLCDR3 amino acid sequence of SEQ ID NO: 28;

ii) an isolated antibody molecule capable of binding to macrophage colony stimulating factor 1

(M-CSF) comprising (a) a heavy chain variable region (VH) comprising a VHCDR1 amino acid sequence of SEQ ID NO: 3, a VHCDR2 amino acid sequence of SEQ ID NO: 4 and a VHCDR3 amino acid sequence of SEQ ID NO: 5; and a light chain variable region (VL) comprising a VLCDR1 amino acid sequence of SEQ ID NO: 6, a VLCDR2 amino acid sequence of SEQ ID NO: 7 and a VLCDR3 amino acid sequence of SEQ ID NO: 8.

2. The pharmaceutical combination according to claim 1, wherein

i) the isolated antibody molecule capable of binding to a human Programmed Death-1 (PD-1) has a HC sequence of SEQ ID NO: 25 and a LC sequence of SEQ ID NO: 30; and

ii) the isolated antibody molecule capable of binding to macrophage colony stimulating factor 1 (M-CSF) has a HC sequence of SEQ ID NO: 1 and a LC sequence of SEQ ID NO: 2.

3. The pharmaceutical combination according to claim 1 or claim 2, for use as a medicine, wherein the PD-1 antibody molecule and the M-CSF antibody molecule are administered independently at the same time or separately within time intervals.

4. The pharmaceutical combination for use according to claim 3, wherein time intervals allow the combination partners to be active.

5. Use of the pharmaceutical combination according to claim 1 or claim 2, in the manufacture of a medicament for the treatment of a cancer selected from the group consisting of triple negative breast cancer (TNBC), skin cancer, ovarian cancer, pancreatic cancer, glioblastoma (GBM), lung cancer, kidney renal cell carcinoma, diffuse large b cell lymphoma (DLBCL), mesothelioma, endometrial cancer, nasopharyngeal carcinoma (NPC), and a TNBC or melanoma, that has become resistant or refractory to PD-1 or PD-L1 therapy.
6. The use according to claim 5, wherein the cancer is triple negative breast cancer.
7. The use according claim 5, wherein the cancer is ovarian cancer.
8. The use according to claim 5, wherein the cancer is melanoma.
9. The use according to claim 5, wherein the cancer is pancreatic cancer.
10. The use according to claim 5, wherein the cancer is glioblastoma (GBM).
11. The use according to claim 5, wherein the cancer is lung cancer
12. The use according to claim 5, wherein the cancer is, kidney renal cell carcinoma.
13. The use according to claim 5, wherein the cancer is diffuse large b cell lymphoma (DLBCL).
14. The use according to claim 5, wherein the cancer is, mesothelioma.
15. The use according to claim 5, wherein the cancer is endometrial cancer.
16. The use according to claim 5, wherein the cancer is, nasopharyngeal carcinoma (NPC).
17. The use according to claim 5, wherein the TNBC or melanoma has become resistant or refractory to PD-1 or PD-L1 therapy.

18. The use according to claim 17, wherein the PD-1 antibody molecule and the M-CSF antibody are to be simultaneously or sequentially administrated.

19. The use according to claim 17, wherein the medicament, is to be administered in combination with a chemotherapy agent.

20. The pharmaceutical composition comprising the combination according to claim 1 or claim 2, and a pharmaceutically acceptable carrier, excipient or stabilizer.

21. The pharmaceutical combination according to claim 1 or claim 2, for use in the treatment of a cancer, selected from the group consisting of triple negative breast cancer (TNBC), skin cancer, ovarian cancer, pancreatic cancer, glioblastoma (GBM), lung cancer, kidney renal cell carcinoma, diffuse large b cell lymphoma (DLBCL), mesothelioma, endometrial cancer, nasopharyngeal carcinoma (NPC), and TNBC or melanoma, that has become resistant or refractory to PD-1 or PD-L1 therapy.