CLAIMS

1. The use of a Programmed Death (PD-1) antagonist in combination with a tumor antigen or a nucleic acid encoding the tumor antigen in the manufacture of a medicament for the treatment of tumor in a subject.

2. The use of claim 1, wherein the PD-1 antagonist is an antibody that specifically binds PD-1, an antibody that specifically Programmed Death Ligand 1 (PD-Ll) or Programmed Death Ligand-2 (PD-L2), or combinations thereof.

3. The use of claim 1, wherein the subject is immunosuppressed.

4. The use of claim 1, wherein the PD-1 antagonist is a small inhibitory anti-PD-1 RNAi, a small inhibitory anti-PD-Ll RNAi, an small inhibitory anti-PD-L2 RNAi, an anti-PD-1 antisense RNA, an anti-PD-Ll antisense RNA, an anti-PD-L2 antisense RNA, a dominant negative PD-1 protein, a dominant negative PD-Ll protein, or a dominant negative PD-L2 protein.

5. The use of claim 2, wherein the antibody that specifically binds PD-1 is (1) a monoclonal antibody or a functional fragment thereof, (2) a humanized antibody or a functional fragment thereof, or (3) an immunoglobulin fusion protein.

6. The use of claim 2, wherein the antibody that specifically binds PD-Ll is (1) a monoclonal antibody or a functional fragment thereof, (2) a humanized antibody or a functional fragment thereof, or (3) an immunoglobulin fusion protein.

7. The use of claim 2, wherein the antibody that specifically binds PD-L2 is (1) a monoclonal antibody or a functional fragment thereof, (2) a humanized antibody or a functional fragment thereof, or (3) an immunoglobulin fusion protein.

8. The use of claim 1, wherein the PD-1 antagonist is a small molecule.

9. The use of any one of claims 1-8, wherein the tumor antigen is PRAME, WT1, Survivin, cyclin D, cyclin E, proteinase 3 and its peptide PR1, neutrophil elastase, cathepsin G, MAGE, MART, tyrosinase, GP100, NY-Eso-1, herceptin, carcino-embryonic antigen (CEA), or prostate specific antigen (PSA).

10. The use of any one of claims 1-9, wherein the subject is human.

11. The use of any one of claims 1-10, wherein the tumor is associated with acute myelogenous leukemia, chronic myelogenous leukemia, myelodysplastic syndrome, acute lymphoblastic leukemia, chronic lymphocytic leukemia, non-Hodgkin's lymphoma, multiple myeloma, malignant myeloma, breast cancer, lung cancer, prostate cancer, colon cancer, or renal cell carcinoma (RCC).

12. The use of claims 1-11, wherein the therapeutically effective amount of a tumor antigen or a nucleotide encoding a tumor antigen is formulated as a vaccine.

CLAIMS

1. The use of a Programmed Death (PD-1) antagonist in combination with a tumor antigen or a nucleic acid encoding the tumor antigen in the manufacture of a medicament for the treatment of tumor in a subject, wherein the PD-1 antagonist is an antibody that specifically binds Programmed Death Ligand 1 (PD-L1), an anti-PD-LI antisense RNA, an antibody that specifically binds PD-1, or an anti-PD-1 antisense RNA, and wherein:

the antibody that specifically binds PD-1 is (1) a monoclonal antibody or a functional fragment thereof, (2) a humanized antibody or a functional fragment thereof, or (3) an immunoglobulin fusion protein; and

the antibody that specifically binds PD-LI is (1) a monoclonal antibody or a functional fragment thereof, (2) a humanized antibody or a functional fragment thereof, or (3) an immunoglobulin fusion protein.

2. The use of claim 1, wherein the PD-1 antagonist is the antibody that specifically binds PD-1 or the antibody that specifically binds PD-LI.

3. The use of claim 1, wherein the subject is immunosuppressed.

4. The use of claim 1, wherein the PD-1 antagonist is the anti-PD-1 antisense RNA or the anti-PD-LI antisense RNA.

5. The use of claim 2, wherein the PD-1 antagonist is the antibody that specifically binds PD-1.

6. The use of claim 2, wherein the PD-1 antagonist is the antibody that specifically binds PD-LI.

7. The use of any one of claims 1-6, wherein the tumor antigen is PRAME, WTl, Survivin, cyclin D, cyclin E, proteinase 3 and its peptide PRl, neutrophil elastase, cathepsin G,

MAGE, MART, tyrosinase, GPlOO, NY-Eso-1, herceptin, carcino- embryonic antigen (CEA), or prostate specific antigen (PSA).

8. The use of any one of claims 1-7, wherein the subject is human.

9. The use of any one of claims 1-8, wherein the tumor is associated with acute myelogenous leukemia, chronic myelogenous leukemia, myelodysplastic syndrome, acute lymphoblastic leukemia, chronic lymphocytic leukemia, non-Hodgkin's lymphoma, multiple myeloma, malignant myeloma, breast cancer, lung cancer, prostate cancer, colon cancer, or renal cell carcinoma (RCC).

10. The use of claims 1-9, wherein the therapeutically effective amount of a tumor antigen or a nucleotide encoding a tumor antigen is formulated as a vaccine.