

CLAIMS

1. A bispecific binding protein that binds to PD-1 and CTLA-4 comprising a first heavy chain comprising the amino acid sequence of SEQ ID NO: 9, a first light chain comprising the amino acid sequence of SEQ ID NO: 7, a second heavy chain comprising the amino acid sequence of SEQ ID NO: 12, and a second light chain comprising the amino acid sequence of SEQ ID NO: 4.
2. The protein of claim 1 comprising an Fc region, wherein the Fc region is aglycosylated.
3. The protein of claim 1 comprising an Fc region, wherein the Fc region is deglycosylated.
4. The protein of claim 1 comprising an Fc region, wherein the Fc region has reduced fucosylation or is afucosylated.
5. A composition comprising the protein of claim 1 and a pharmaceutically acceptable carrier.
6. A nucleic acid molecule comprising a nucleotide sequence encoding a protein of claim 1.
7. A vector comprising the nucleic acid molecule of claim 6.
8. An isolated host cell comprising the vector of claim 7.
9. The protein of claim 1 for use in the treatment and prevention of cancer in a subject, wherein the protein of claim 1 is to be administered to the subject.
10. The protein for use according to claim 9, wherein the cancer is one or more of ovarian cancer, breast cancer, colorectal cancer, prostate cancer, cervical cancer, uterine cancer, testicular cancer, bladder cancer, head and neck cancer, melanoma, pancreatic cancer, renal cell carcinoma, and lung cancer.

11. The protein of claim 1 for use in the enhancement of an immune response in a subject, wherein the protein of claim 1 is to be administered to the subject.

12. The nucleic acid molecule of claim 6, wherein the nucleotide encoding the protein of claim 1 comprises a nucleotide sequence encoding a first heavy chain, comprising the nucleotide sequence of SEQ ID NO: 10; a nucleotide sequence encoding a first light chain, comprising the nucleotide sequence of SEQ ID NO: 8; a nucleotide sequence encoding a second heavy chain, comprising the nucleotide sequence of SEQ ID NO: 13; and a nucleotide sequence encoding a second light chain, comprising the nucleotide sequence of SEQ ID NO: 11.