Claims:

1. An anti-human PD-1 (hPD-1) antibody-modified human interleukin-2 (hIL-2) immunoconjugate comprising:

a modified hIL-2 protein comprising the amino acid sequence of SEQ ID NO: 217; and an anti-hPD-1 antibody, or antigen-binding fragment thereof, that immunospecifically binds to hPD-1, wherein the antibody or antigen-binding fragment thereof comprises a heavy chain complementarity determining region 1 (CDR1) comprising the amino acid sequence of SEQ ID NO: 418, a heavy chain CDR2 comprising the amino acid sequence of SEQ ID NO: 419, a heavy chain CDR3 comprising the amino acid sequence of SEQ ID NO: 420, a light chain CDR1 comprising the amino acid sequence of SEQ ID NO: 421, a light chain CDR2 comprising the amino acid sequence of SEQ ID NO: 422, and a light chain CDR3 comprising the amino acid sequence of SEQ ID NO: 423.

2. The immunoconjugate of claim 1, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises an IgG1 heavy chain constant region.

3. The immunoconjugate of claim 1 or claim 2, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises an L235A substitution and a G237A substitution, according to EU numbering.

4. The immunoconjugate of any one of claims 1-3, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises a heavy chain (HC) comprising the amino acid sequence of SEQ ID NO: 414 and a light chain (LC) comprising the amino acid sequence of SEQ ID NO: 415.

5. An anti-hPD-1 antibody-modified hIL-2 immunoconjugate comprising:

a modified hIL-2 protein comprising the amino acid sequence of SEQ ID NO: 217; and an anti-hPD-1 antibody, or antigen-binding fragment thereof, comprising a VH comprising the amino acid sequence of SEQ ID NO: 416 and a VL comprising the amino acid sequence of SEQ ID NO: 417.

6. The immunoconjugate of claim 5, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises an IgG1 heavy chain constant region.

7. The immunoconjugate of claim 5 or 6, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises an L235A substitution and a G237A substitution, according to EU numbering.

8. The immunoconjugate of any one of claims 5-7, wherein the anti-hPD-1 antibody, or antigen-binding fragment thereof, comprises a HC comprising the amino acid sequence of SEQ ID NO: 414 and a LC comprising the amino acid sequence of SEQ ID NO: 415.

9. An anti-hPD-1 antibody-modified hIL-2 immunoconjugate comprising:

a modified hIL-2 protein comprising the amino acid sequence of SEQ ID NO: 217; and

an anti-hPD-1 antibody, or antigen-binding fragment thereof, comprising a HC comprising the amino acid sequence of SEQ ID NO: 414 and a LC comprising the amino acid sequence of SEQ ID NO: 415.

10. The immunoconjugate of claim 9, comprising:

a light chain comprising the amino acid sequence of SEQ ID NO: 415; and

a heavy chain-modified hIL-2 protein fusion comprising the amino acid sequence of SEQ ID NO: 532.