CLAIMS

1. A fusion protein comprising: an antibody or an antigen-binding fragment thereof that specifically binds to CD73; and IL-2.

2. The fusion protein of claim 1, wherein the fusion protein comprises the following structural formula (I):

N'-X-[linker (1)]o-Fc region fragment or variant thereof-[linker (2)]p-Y-C' (I)

Wherein, in the structural formula (I),

N' is the N-terminus,

C' is the C-terminus,

X is the antibody or antigen-binding fragment thereof that specifically binds to CD73,

Y is IL-2,

linker (1) and linker (2) are peptide linkers, and

o and p are each independently 0 or 1.

3. The fusion protein of claim 2, wherein the antigen-binding fragment comprises a single-domain antibody.

4. The fusion protein of claim 3, wherein the antigen-binding fragment comprises:

a CDR1 region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 15, 18, and 21;

a CDR2 region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 16, 19, and 22;

and a CDR3 region comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 17, 20, and 23.

5. The fusion protein of claim 3, wherein the antigen-binding fragment comprises any one amino acid sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, and SEQ ID NO: 4.

6. The fusion protein of claim 2, wherein the linker (1) comprises the amino acid sequence of SEQ ID NO: 5.

7. The fusion protein of claim 2, wherein the linker (2) comprises the amino acid sequence of SEQ ID NO: 7.

8. The fusion protein of claim 1, wherein the fusion protein comprises the following structural formulas (II) and (III):

N'-X-[linker (3)]q-Fc region fragment or variant thereof-[linker (4)]r-Y-C' (II)

and

N'-X'-C' (III)

Wherein, in the structural formulas (II) and (III),

N' is the N-terminus,

C' is the C-terminus,

X is an antibody or an antigen-binding fragment thereof that specifically binds to CD73, and comprises a heavy chain variable region (VH) and a heavy chain constant region 1 (CH1),

X’ is an antibody or an antigen-binding fragment thereof that specifically binds

to CD73, and comprises a light chain variable region (VL) and a light chain constant region (CL),

Y is IL-2,

linker (3) and linker (4) are peptide linkers, and

q and r are each independently 0 or 1.

9. The fusion protein of claim 8, wherein the antibody or antigen-binding fragment thereof comprises:

a heavy chain variable region comprising an HCDR1 comprising the amino acid sequence of SEQ ID NO: 24, an HCDR2 comprising the amino acid sequence of SEQ ID NO: 25, and an HCDR3 comprising the amino acid sequence of SEQ ID NO: 26; and

a light chain variable region comprising an LCDR1 comprising the amino acid sequence of SEQ ID NO: 27, an LCDR2 comprising the amino acid sequence of SEQ ID NO: 28, and an LCDR3 comprising the amino acid sequence of SEQ ID NO: 29.

10. The fusion protein of claim 9, wherein the heavy chain variable region comprises the amino acid sequence of SEQ ID NO: 9, and the light chain variable region comprises the amino acid sequence of SEQ ID NO: 13.

11. The fusion protein of claim 8, wherein the linker (3) comprises the amino acid sequence of SEQ ID NO: 11.

12. The fusion protein of claim 8, wherein the linker (4) comprises the amino acid sequence of SEQ ID NO: 12.

13. The fusion protein of claim 2 or 8, wherein the Fc comprises the amino acid sequence of SEQ ID NO: 6.

14. The fusion protein of claim 2 or 8, wherein the IL-2 is an IL-2 variant.

15. The fusion protein of claim 14, wherein the IL-2 variant comprises substitution of at least one of amino acids at positions 38, 42 and 61 in the amino acid sequence of SEQ ID NO: 40.

16. The fusion protein of claim 15, wherein the IL-2 variant comprises at least one substitution selected from the group consisting of R38A, F42A and E61R in the amino acid sequence of SEQ ID NO: 40.

17. A fusion protein dimer obtained by linking two fusion proteins of claim 1 to each other.

18. A polynucleotide encoding the fusion protein of claim 1.

19. A pharmaceutical composition for use in preventing or treating cancer comprising, as an active ingredient, the fusion protein of claim 1 or the fusion protein dimer of claim 17.

20. Use of a pharmaceutical composition comprising, as an active ingredient, the fusion protein of claim 1 or the fusion protein dimer of claim 17, in the manufacture of a medicament for preventing or treating cancer.