

[CLAIMS]

[Claim 1]

An antibody which binds to a pancreatic adenocarcinoma upregulated factor (PAUF) protein, comprising:

a heavy chain variable region, which comprises a heavy chain CDR1 of SEQ ID NO: 1; a heavy chain CDR2 of SEQ ID NO: 2, or 39; and a heavy chain CDR3 of SEQ ID NO: 3, 4, or 30; and

a light chain variable region, which comprises a light chain CDR1 of SEQ ID NO: 5; a light chain CDR2 of SEQ ID NO: 6; and a light chain CDR3 of SEQ ID NO: 7 or 31.

[Claim 2]

The antibody of claim 1, wherein:

the heavy chain variable region of the antibody comprises a heavy chain FR1 of SEQ ID NO: 8, 19, or 32; a heavy chain FR2 of SEQ ID NO: 9 or 20; a heavy chain FR3 of SEQ ID NO: 10, 21, or 33; and a heavy chain FR4 of SEQ ID NO: 11, 12, 22, 23, or 34; and

the light chain variable region of the antibody comprises the light chain FR1 of SEQ ID NO: 13, 24, or 35; the light chain FR2 of SEQ ID NO: 14 or 25; the light chain FR3 of SEQ ID NO: 15 or 26; and the light chain FR4 of SEQ ID NO: 16, 27, or 36.

[Claim 3]

The antibody of claim 1, wherein:

the heavy chain variable region consists of the amino acid sequence of SEQ ID NO: 17, 28, or 37; and

the light chain variable region consists of the amino acid sequence of SEQ ID NO: 18, 29, or 38.

[Claim 4]

A polynucleotide encoding the antibody of any one of claims 1 to 3.

[Claim 5]

An expression vector comprising the polynucleotide of claim 4.

[Claim 6]

A transformant, wherein the expression vector of claim 5 is introduced.

[Claim 7]

A pharmaceutical composition for treating cancer comprising the antibody of any one of claims 1 to 3.

[Claim 8]

A use of the antibody of any one of claims 1 to 3 in the manufacture of a medicament for treating cancer.

[Claim 9]

A use of the antibody of any one of claims 1 to 3 in the manufacture of a medicament for inhibiting proliferation, migration, or invasion of cancer cells.

[Claim 10]

An antibody-drug conjugate, wherein a drug is conjugated to the antibody of any one of claims 1 to 3.

[Claim 11]

A cancer diagnostic composition comprising the antibody of any one of claims 1 to 3.

[Claim 12]

A cancer diagnostic kit comprising the composition of claim 11.

[Claim 13]

A cancer diagnostic method comprising detecting a pancreatic adenocarcinoma upregulated factor (PAUF) protein in a biological sample isolated from a subject suspected of cancer through an antigen-antibody reaction using the antibody of any one of claims 1 to 3.

[Claim 14]

An in vitro or ex vivo method for screening materials for preventing or treating cancer, comprising:

- (a) treating cancer cells isolated from a subject with a candidate material for preventing or treating cancer;
- (b) measuring the level of the pancreatic adenocarcinoma upregulated factor (PAUF) protein in the cancer cells, in which the candidate material was treated, using the antibody of any one of claims 1 to 3; and
- (c) determining whether the candidate material, which was treated in step (a), can be used as a material for preventing or treating cancer, when the level of the PAUF protein in step (b) is lower than that of the cancer cells not treated with the candidate material.