CLAIMS

[Claim 1]

An antibody or antigen-binding fragment thereof bindable to a conformational epitope on human periostin,

the epitope comprising the amino acid sequence A represented by SEQ ID NO: 61 and the amino acid sequence B represented by any one of SEQ ID NOs: 62 to 64.

[Claim 2]

The antibody or antigen-binding fragment thereof according to claim 1, wherein the human periostin is human periostin secreted from a human cell.

[Claim 3]

The antibody or antigen-binding fragment thereof according to claim 1 or 2, wherein the human cell is a human breast cancer cell.

[Claim 4]

The antibody or antigen-binding fragment thereof according to any one of claims 1 to 3, which is a monoclonal antibody or antigen-binding fragment thereof.

[Claim 5]

The antibody or antigen-binding fragment thereof according to any one of claims 1 to 4, comprising

heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 1 and/or 2, SEQ ID NO: 13 and/or 14, SEQ ID NO: 25 and/or 26, SEQ ID NO: 37 and/or 38, or SEQ ID NO: 49 and/or 50,

heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 3 and/or 4, SEQ ID NO: 15 and/or 16, SEQ ID NO: 27 and/or 28, SEQ ID NO: 39 and/or 40, or SEQ ID NO: 51 and/or 52,

heavy-chain CDR 3 comprising the amino acid sequence

represented by SEQ ID NO: 5 and/or 6, SEQ ID NO: 17 and/or 18, SEQ ID NO: 29 and/or 30, SEQ ID NO: 41 and/or 42, or SEQ ID NO: 53 and/or 54,

light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 7 and/or 8, SEQ ID NO: 19 and/or 20, SEQ ID NO: 31 and/or 32, SEQ ID NO: 43 and/or 44, or SEQ ID NO: 55 and/or 56,

light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 9 and/or 10, SEQ ID NO: 21 and/or 22, SEQ ID NO: 33 and/or 34, SEQ ID NO: 45 and/or 46, or SEQ ID NO: 57 and/or 58, and

light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 11 and/or 12, SEQ ID NO: 23 and/or 24, SEQ ID NO: 35 and/or 36, SEQ ID NO: 47 and/or 48, or SEQ ID NO: 59 and/or 60.

[Claim 6]

The antibody or antigen-binding fragment thereof according to any one of claims 1 to 5, comprising the following (A), (B), (C), (D), or (E):

(A)

heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 1 and/or 2,

heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 3 and/or 4,

heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 5 and/or 6,

light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 7 and/or 8,

light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 9 and/or 10, and

light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 11 and/or 12;

(B)

heavy-chain CDR 1 comprising the amino acid sequence

represented by SEQ ID NO: 13 and/or 14,
heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 15 and/or 16,
heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 17 and/or 18,
light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 19 and/or 20,
light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 21 and/or 22, and
light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 23 and/or 24;
(C)
heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 25 and/or 26,
heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 27 and/or 28,
heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 29 and/or 30,
light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 31 and/or 32,
light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 33 and/or 34, and
light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 35 and/or 36;
(D)
heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 37 and/or 38,
heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 39 and/or 40,
heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 41 and/or 42,
light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 43 and/or 44,
light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 45 and/or 46, and

light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 47 and/or 48; or

(E)

heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 49 and/or 50,

heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 51 and/or 52,

heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 53 and/or 54,

light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 55 and/or 56,

light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 57 and/or 58, and

light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 59 and/or 60.

[Claim 7]

The antibody or antigen-binding fragment thereof according to any one of claims 1 to 6, comprising

(A)

heavy-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 1 and/or 2,

heavy-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 3 and/or 4,

heavy-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 5 and/or 6,

light-chain CDR 1 comprising the amino acid sequence represented by SEQ ID NO: 7 and/or 8,

light-chain CDR 2 comprising the amino acid sequence represented by SEQ ID NO: 9 and/or 10, and

light-chain CDR 3 comprising the amino acid sequence represented by SEQ ID NO: 11 and/or 12.

[Claim 8]

An antibody obtained by a method comprising selecting

an antibody bindable to human periostin secreted from a human breast cancer cell from among antibodies produced by a hybridoma obtained from an animal immunized with at least one protein or peptide selected from the group consisting of:

(e) a protein or peptide containing the amino acid sequence represented by SEQ ID NO: 65, and

(f) a protein or peptide containing an amino acid sequence X with at least 85% identity to the amino acid sequence represented by SEQ ID NO: 65 and containing the amino acid sequence A represented by SEQ ID NO: 61 and the amino acid sequence B represented by any one of SEQ ID NOs: 62 to 64 within the amino acid sequence X.

[Claim 9]

An antibody produced from a hybridoma obtained from an animal immunized with at least one protein or peptide selected from the group consisting of:

(e) a protein or peptide containing the amino acid sequence represented by SEQ ID NO: 65, and

(f) a protein or peptide containing an amino acid sequence X with at least 85% identity to the amino acid sequence represented by SEQ ID NO: 65 and containing the amino acid sequence A represented by SEQ ID NO: 61 and the amino acid sequence B represented by any one of SEQ ID NOs: 62 to 64 within the amino acid sequence X,

the antibody being bindable to human periostin secreted from a human breast cancer cell.

[Claim 10]

A polynucleotide comprising a coding sequence of the antibody or antigen-binding fragment thereof of any one of claims 1 to 9.

[Claim 11]

A cell comprising the polynucleotide of claim 10.

[Claim 12]

A conjugate of the antibody or antigen-binding fragment thereof of any one of claims 1 to 9 with a drug.

[Claim 13]

A pharmaceutical composition comprising at least one member selected from the group consisting of the antibody or antigen-binding fragment thereof of any one of claims 1 to 9 and the conjugate of claim 12.

[Claim 14]

The pharmaceutical composition according to claim 13, for use in the prevention or treatment of cancer, for use in the inhibition of vasculogenic mimicry in cancer, for use in the inhibition of periostin, for use in the prevention or treatment of inflammation-related diseases, for use in the inhibition of intimal hypertrophy, for use in the inhibition of angiogenesis, for use in the prevention or treatment of aneurysm, or for use in the prevention or treatment of diabetic retinopathy.

[Claim 15]

A reagent comprising at least one member selected from the group consisting of the antibody or antigen-binding fragment thereof of any one of claims 1 to 9 and the conjugate of claim 12.