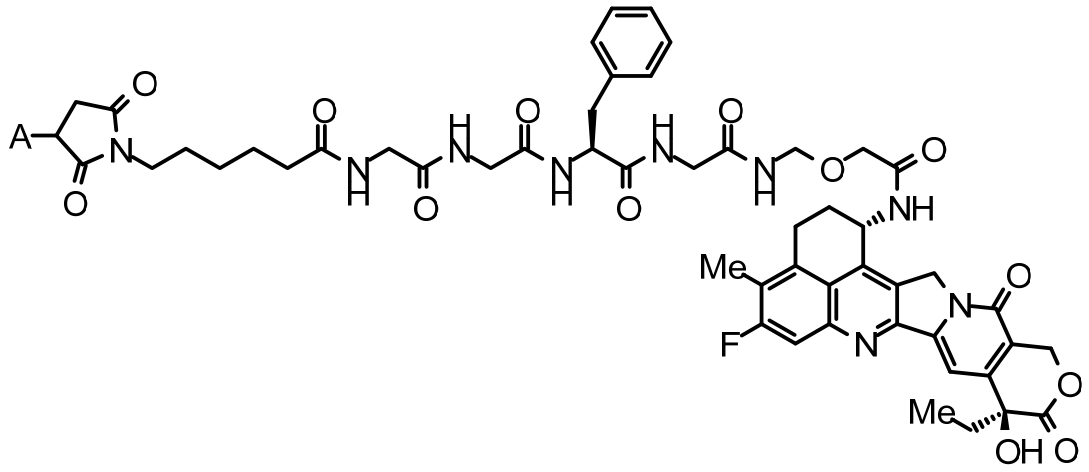
Claims

[Claim 1]

Use of an antibody-drug conjugate in the manufacture of a medicament for treating ~~a disease~~cancer, wherein the antibody-drug conjugate is to be administered in combination with a PARP inhibitor, wherein the antibody-drug conjugate is an antibody-drug conjugate in which a drug-linker represented by the following formula:

[Formula 1]



wherein A represents a connecting position to an antibody,

is conjugated to the antibody via a thioether bond.

[Claim 2]

The use according to claim 1, wherein the antibody in the antibody-drug conjugate is an anti-HER2 antibody, an anti-HER3 antibody, an anti-TROP2 antibody, an anti-B7-H3 antibody, an anti-GPR20 antibody, or an anti-CDH6 antibody.

[Claim 3]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-HER2 antibody.

[Claim 4]

The use according to claim 3, wherein the anti-HER2 antibody is:

(a) an antibody comprising a heavy chain comprising CDRH1 consisting of an amino acid sequence consisting of amino acid residues 26 to 33 of SEQ ID NO: 1, CDRH2 consisting of an amino acid sequence consisting of amino acid residues 51 to 58 of SEQ ID NO: 1, and CDRH3 consisting of an amino acid sequence consisting of amino acid residues 97 to 109 of SEQ ID NO: 1, and a light chain comprising CDRL1 consisting of an amino acid sequence consisting of amino acid residues 27 to 32 of SEQ ID NO: 2, CDRL2 consisting of an amino acid sequence consisting of amino acid residues 50 to 52 of SEQ ID NO: 2, and CDRL3 consisting of an amino acid sequence consisting of amino acid residues 89 to 97 of SEQ ID NO: 2; or

(b) an antibody comprising a heavy chain comprising a heavy chain variable region consisting of an amino acid sequence consisting of amino acid residues 1 to 120 of SEQ ID NO: 1 and a light chain comprising a light chain variable region consisting of an amino acid sequence consisting of amino acid residues 1 to 107 of SEQ ID NO: 2; or

(c) an antibody comprising a heavy chain consisting of an amino acid sequence represented by SEQ ID NO: 1 and a light chain consisting of an amino acid sequence represented by SEQ ID NO: 2; or

(d) an antibody comprising a heavy chain consisting of an amino acid sequence consisting of amino acid residues 1 to 449 of SEQ ID NO: 1 and a light chain consisting of an amino acid sequence consisting of amino acid residues 1 to 214 of SEQ ID NO: 2.

[Claim 5]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-HER3 antibody.

[Claim 6]

The use according to claim 5, wherein the anti-HER3 antibody is an antibody comprising a heavy chain consisting of an amino acid sequence represented by SEQ ID NO: 3 and a light chain consisting of an amino acid sequence represented by SEQ ID NO: 4,

optionally wherein the anti-HER3 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 7]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-TROP2 antibody.

[Claim 8]

The use according to claim 7, wherein the anti-TROP2 antibody is an antibody comprising a heavy chain

consisting of an amino acid sequence consisting of amino acid residues 20 to 470 of SEQ ID NO: 5 and a light chain consisting of an amino acid sequence consisting of amino acid residues 21 to 234 of SEQ ID NO: 6,

optionally wherein the anti-TROP2 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 9]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-B7-H3 antibody.

[Claim 10]

The use according to claim 9, wherein the anti-B7-H3 antibody is an antibody comprising a heavy chain consisting of an amino acid sequence consisting of amino acid residues 20 to 471 of SEQ ID NO: 7 and a light chain consisting of an amino acid sequence consisting of amino acid residues 21 to 233 of SEQ ID NO: 8,

optionally wherein the anti-B7-H3 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 11]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-GPR20 antibody.

[Claim 12]

The use according to claim 11, wherein the anti-GPR20 antibody is an antibody comprising a heavy chain consisting of an amino acid sequence consisting of amino

acid residues 20 to 472 of SEQ ID NO: 9 and a light chain consisting of an amino acid sequence consisting of amino acid residues 21 to 234 of SEQ ID NO: 10,

optionally wherein the anti-GPR20 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 13]

The use according to claim 2, wherein the antibody in the antibody-drug conjugate is an anti-CDH6 antibody.

[Claim 14]

The use according to claim 13, wherein the anti-CDH6 antibody is an antibody comprising a heavy chain consisting of an amino acid sequence consisting of amino acid residues 20 to 471 of SEQ ID NO: 11 and a light chain consisting of an amino acid sequence consisting of amino acid residues 21 to 233 of SEQ ID NO: 12,

optionally wherein the anti-CDH6 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 15]

The use according to any one of the preceding claims, wherein:

(a) when the antibody is an anti-HER2 antibody, an anti-HER3 antibody, an anti-GPR20 antibody or an anti-CDH6 antibody, the average number of units of the drug-linker conjugated per antibody molecule in the antibody-drug conjugate is in the range of from 7 to 8; or

(b) when the antibody is an anti-TROP2 antibody or an anti-B7-H3 antibody, the average number of units of the drug-linker conjugated per antibody molecule in the antibody-drug conjugate is in the range of from 3.5 to 4.5.

[Claim 16]

The use according to any one of claims 1 to 15, wherein the PARP inhibitor is olaparib, rucaparib, niraparib, talazoparib, or veliparib, or a pharmacologically acceptable salt thereof.

[Claim 17]

The use according to any one of claims 1 to 16, wherein the antibody-drug conjugate and the PARP inhibitor are separately contained as active components in different formulations, and are to be administered simultaneously or at different times.

[Claim 18]

The use according to any one of claims 1 to 17, wherein the ~~disease~~ cancer is at least one selected from the group consisting of breast cancer, gastric cancer, colorectal cancer, lung cancer, esophageal cancer, head-and-neck cancer, gastroesophageal junction adenocarcinoma, biliary tract cancer, Paget's disease, pancreatic cancer, ovarian cancer, bladder cancer, prostate cancer, uterine carcinosarcoma, gastrointestinal stromal tumor, kidney cancer, and sarcoma,

optionally wherein the ~~disease~~ cancer is at least one selected from the group consisting of breast cancer (e.g. HER2 low-expressing breast cancer), gastric cancer, ovarian cancer, lung cancer, and pancreatic cancer.

[Claim 19]

A pharmaceutical composition comprising an antibody-drug conjugate and a PARP inhibitor, wherein the antibody-drug conjugate and PARP inhibitor are as defined in any one of claims 1 to 16.

[Claim 20]

A kit of parts comprising:

(A) an antibody drug conjugate as defined in any one of claims 1 to 15; and

(B) a PARP inhibitor as defined in claim 1 or 16.