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Summary

[0011a] In one aspect, the present disclosure refers to an anti-TROP2 antibody comprising CDRH1 consisting of the amino acid sequence of SEQ ID NO: 23, CDRH2 consisting of the amino acid sequence of SEQ ID NO: 24 and CDRH3 consisting of the amino acid sequence of SEQ ID NO: 25 in its heavy chain variable region and CDRL1 consisting of the amino acid sequence of SEQ ID NO: 26, CDRL2 consisting of the amino acid sequence of SEQ ID NO: 27 and CDRL3 consisting of the amino acid sequence of SEQ ID NO: 28 in its light chain variable region.

[0011b] In one aspect, the present disclosure refers to a functional fragment of the anti-TROP2 antibody as desceibed hererin.

[0011c] In one aspect, the present disclosure refers to a modified variant of the anti-TROP2 antibody as desceibed hererin.

[0011d] In one aspect, the present disclosure refers to a polynucleotide encoding the anti-TROP2 antibody as desceibed hererin.

[0011e] In one aspect, the present disclosure refers to a vector comprising the polynucleotide as desceibed hererin.

[0011f] In one aspect, the present disclosure refers to a transformed host cell comprising the polynucleotide as desceibed hererin.

[0011g] In one aspect, the present disclosure refers to a transformed host cell comprising the vector as desceibed hererin.

[0011h] In one aspect, the present disclosure refers to a method for producing the anti-TROP2 antibody as desceibed hererin, the functional fragment as desceibed hererin, or the modified variant as desceibed hererin, comprising the steps of: culturing the host cell as desceibed hererin; and then purifying an anti-TROP2 antibody from a cultured product obtained in the culturing step.

[0011i] In one aspect, the present disclosure refers to an antibody-drug conjugate wherein an antitumor compound is conjugated to the anti-TROP2 antibody as desceibed hererin, the functional fragment as desceibed hererin, or the modified variant as desceibed hererin.

Technical Problem

[0012]

Claims

[Claim 1]
An anti-TROP2 antibody comprising CDRH1 consisting of the amino acid sequence of SEQ ID NO: 23, CDRH2 consisting of the amino acid sequence of SEQ ID NO: 24 and CDRH3 consisting of the amino acid sequence of SEQ ID NO: 25 in its heavy chain variable region and CDRL1 consisting of the amino acid sequence of SEQ ID NO: 26, CDRL2 consisting of the amino acid sequence of SEQ ID NO: 27 and CDRL3 consisting of the amino acid sequence of SEQ ID NO: 28 in its light chain variable region.

[Claim 2]
The anti-TROP2 antibody according to claim 1, wherein the anti-TROP2 antibody comprises a heavy chain variable region and a light chain variable region selected from the group;
a heavy chain variable region consisting of the amino acid sequence of positions 20 to 140 of SEQ ID NO: 12 and a light chain variable region consisting of the amino acid sequence of positions 21 to 129 of SEQ ID NO: 18,
a heavy chain variable region consisting of the amino acid sequence of positions 20 to 140 of SEQ ID NO: 14 and a light chain variable region consisting of the amino acid sequence of positions 21 to 129 SEQ ID NO: 18,
a heavy chain variable region consisting of the amino acid sequence of positions of 20 to 140 of SEQ ID NO: 14 and a light chain variable region consisting of the amino acid sequence of positions 21 to 129 of SEQ ID NO: 20, and
a heavy chain variable region consisting of the amino acid sequence of positions 20 to 140 of SEQ ID NO: 16 and a light chain variable region consisting of the amino acid sequence of positions 21 to 129 of SEQ ID NO: 22.

[Claim 3]
The anti-TROP2 antibody according to claim 1, wherein the anti-TROP2 antibody comprises a heavy chain and a light chain selected from the group;
a heavy chain consisting of the amino acid sequence of positions 20 to 470 of SEQ ID NO: 12 and a light chain consisting of the amino acid sequence of positions 21 to 234 of SEQ ID NO: 18,
a heavy chain consisting of the amino acid sequence of positions 20 to 470 of SEQ ID NO: 14 and a light chain consisting of the amino acid sequence of positions 21 to 234 of SEQ ID NO: 18,
a heavy chain consisting of the amino acid sequence of positions 20 to 470 of SEQ ID NO: 14 and a light chain consisting of the amino acid sequence of positions 21 to 234 of SEQ ID NO: 20, and

a heavy chain consisting of the amino acid sequence of positions 20 to 470 of SEQ ID NO: 16 and a light chain consisting of the amino acid sequence of positions 21 to 234 of SEQ ID NO: 22.

[Claim 4]
The anti-TROP2 antibody according to claim 1, wherein the anti-TROP2 antibody comprises a heavy chain variable region consisting of the amino acid sequence of positions 20 to 140 of SEQ ID NO: 12 and a light chain variable region consisting of the amino acid sequence of positions 21 to 129 of SEQ ID NO: 18.

[Claim 5]
The anti-TROP2 antibody according to claim 1, wherein the anti-TROP2 antibody comprises a heavy chain consisting of the amino acid sequence of positions 20 to 470 of SEQ ID NO: 12 and a light chain consisting of the amino acid sequence of positions 21 to 234 of SEQ ID NO: 18.

[Claim 6]
The anti-TROP2 antibody according to claim 3, wherein the anti-TROP2 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 7]
The anti-TROP2 antibody according to claim 5, wherein the anti-TROP2 antibody lacks a lysine residue at the carboxyl terminus of the heavy chain.

[Claim 8]
A functional fragment of the anti-TROP2 antibody according to any one of claims 1 to 7.

[Claim 9]
A modified variant of the anti-TROP2 antibody according to any one of claims 1 to 7.

[Claim 10]
A polynucleotide encoding the anti-TROP2 antibody according to any one of claims 1 to 7.

[Claim 11]
A vector comprising the polynucleotide according to claim 10.

[Claim 12]
A transformed host cell comprising the polynucleotide according to claim 10.

[Claim 13]

A transformed host cell comprising the vector according to claim 11.

[Claim 14]
A method for producing the anti-TROP2 antibody according to any one of claims 1 to 7, the functional fragment according to claim 8, or the modified variant according to claim 9, comprising the steps of: culturing the host cell according to claim 12 or 13; and then purifying an anti-TROP2 antibody from a cultured product obtained in the culturing step.

[Claim 15]
An antibody-drug conjugate wherein an antitumor compound is conjugated to the anti-TROP2 antibody according to any one of claims 1 to 7, the functional fragment according to claim 8, or the modified variant according to claim 9.