effect is limited when used alone. ADCs (antibody-drug conjugates) are drugs that couple monoclonal antibodies with different numbers of small molecular cytotoxins (effector molecules) through chemical linkers. After entering the body, ADC molecules can bind to antigens on the surface of target cells through the guidance of monoclonal antibodies, and enter the target cells. The ADC molecules entering the cells can release effector molecules through chemical and/or enzymatic actions to achieve the goal of destroying the target cells. ADC drugs combine the advantages of strong targeting of monoclonal antibodies and high activity of small molecular toxins, which can not only reduce the toxic and side effects of small molecular cytotoxins, but also improve the efficacy of drugs.

At present, a variety of ADC drugs are commercially available worldwide, and their indications cover leukemia, lymphoma and breast cancer, etc. However, there are still some problems in the pharmacokinetics and safety of some ADC drugs, which may lead to serious adverse reactions in patients after use. Also, their response rate for some metastatic, recurrent and/or refractory cancers still needs to be further improved. Therefore, there is still a need to develop use or treatment methods for ADC drugs to treat these metastatic, recurrent, and/or refractory cancers, so as to maximize their efficacy and minimize their toxicity to meet the drug demand of cancer patients.

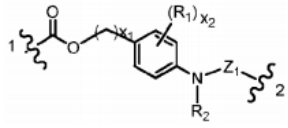
SUMMARY

The present disclosure provides use of a biologically active conjugate represented by formula (I) in preparation of a medicament for treating a tumor disease;

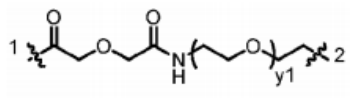
$$\{D\text{-}[L_1\text{-}(L_2)_{m1}\text{-}(L_3)_{m2}\text{-}(L_4)_{m3}\text{-}E]\}_\gamma\text{-}A$$

Formula (I)

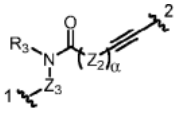
wherein,

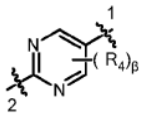
L_1 is ; wherein R_1 and R_2 are each independently hydrogen (such as protium or deuterium), halogen, carboxylate, sulfonate, cyano, C_{1-6} alkyl, halogenated C_{1-6} alkyl, cyano-substituted C_{1-6} alkyl (such as-CH_2CN), C_{1-6} alkoxy, C_{2-10} alkenyl or C_{2-10} alkynyl; Z_1 is an

amino acid or a peptide consisting of 2-10 amino acids; x_1 and x_2 are each independently 0, 1, 2, 3, 4, 5 or 6; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

L_2 is ; wherein y1 is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is 5-12-membered heteroaromatic ring;

L_4 is , wherein Z_2 is selected from C_{1-6} alkylene, C_{2-10} alkenylene, C_{2-10} alkynylene, and C_{3-8} cycloalkylene; R_3 is selected from H and C_{1-6} alkyl; Z_3 is absent or is C_{1-6} alkylene; or, R_3 and Z_3 together with the nitrogen atom to which they are attached form 4-8-membered heterocyclyl; α is 0, 1, 2, 3, 4, 5 or 6, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

E is ; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

m_1, m_2 and m_3 are each independently 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10;

D is a bioactive molecular fragment;

γ refers to the number of moiety {D-[L_1-$(L_2)_{m1}$-$(L_3)_{m2}$-$(L_4)_{m3}$-E}attached to A through a sulfide bond, and is selected from integers from 1 to 10; preferably, γ is selected from integers from 3 to 8 (such as 3, 4, 5, 6, 7 or 8); and

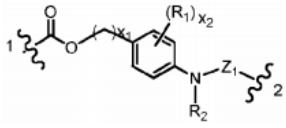
A is a monoclonal antibody against Trop-2 or an antigen-binding fragment thereof.

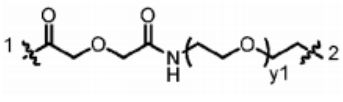
In one aspect, the present disclosure provides use of a biologically active conjugate represented by formula (I) in preparation of a medicament for treating a tumor disease;

$$\{D-[L_1-(L_2)_{m1}-(L_3)_{m2}-(L_4)_{m3}-E]\}_\gamma-A$$

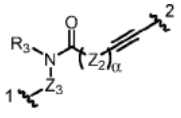
Formula (I)

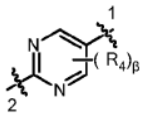
wherein,

L_1 is ; wherein R_1 and R_2 are each independently hydrogen (such as protium or deuterium), halogen, carboxylate, sulfonate, cyano, C_{1-6} alkyl, halogenated C_{1-6} alkyl, cyano-substituted C_{1-6} alkyl (such as $-CH_2CN$), C_{1-6} alkoxy, C_{2-10} alkenyl or C_{2-10} alkynyl; Z_1 is an amino acid or a peptide consisting of 2-10 amino acids; x_1 and x_2 are each independently 0, 1, 2, 3, 4, 5 or 6; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

L_2 is ; wherein y_1 is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is selected from 5-12-membered heteroaromatic rings;

L_4 is , wherein Z_2 is selected from C_{1-6} alkylene, C_{2-10} alkenylene, C_{2-10} alkynylene, and C_{3-8} cycloalkylene; R_3 is selected from H and C_{1-6} alkyl; Z_3 is absent or selected from C_{1-6} alkylene; or, R_3 and Z_3 together with the nitrogen atom to which they are attached form 4-8-membered heterocyclyl; α is 0, 1, 2, 3, 4, 5 or 6, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

E is 

; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

m_1, m_2 and m_3 are each independently 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10;

D is a bioactive molecular fragment;

γ is selected from integers from 1 to 10; preferably, γ is selected from integers from 3 to 8 (such as 3, 4, 5, 6, 7 or 8); and

A is a monoclonal antibody against Trop-2 or an antigen-binding fragment thereof.

In some examples, the tumor disease is an unresectable locally advanced or metastatic solid tumor that has failed standard treatments, has no standard treatment regimen, or is not suitable for standard treatments at the present stage. In some examples, the standard treatment refers to the

standard treatment regimens for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, the tumor disease is a tumor that has failed and/or recurred after first-line chemotherapeutics. In some examples, the first-line chemotherapeutics refer to the first-line chemotherapeutics for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, the tumor disease is a tumor that has failed and/or recurred after radiotherapy. In some examples, the radiotherapy refers to the radiotherapy regimens for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, that tumor disease is a tumor that has failed and/or recurred after targeted drugs or immunotherapy. In some examples, the targeted drug or immunotherapy refers to the targeted drug or immunotherapy for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some examples, the tumor disease includes but is not limited to breast cancer, gastric cancer, lung cancer, ovarian cancer, urinary tract epithelial cancer, esophageal cancer, liver cancer, colorectal cancer, cervical cancer, endometrial cancer, pancreatic cancer, bladder cancer, or brain tumor; preferably breast cancer (such as triple negative breast cancer or Her2 positive breast cancer), ovarian cancer (such as ovarian epithelial cancer), gastric cancer, lung cancer, pancreatic cancer, bladder cancer, or urinary tract epithelial cancer; more preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer, gastric cancer, lung cancer or pancreatic cancer; further preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer or gastric cancer.

In some examples, the tumor disease is breast cancer.

In some examples, the breast cancer includes, but is not limited to, the following types: Luminal type A, Luminal type B, Her-2 positive type, and triple negative type.

In some examples, the tumor disease is triple negative breast cancer.

In some examples, the tumor disease is Her2 positive breast cancer.

In some examples, the tumor disease is ovarian cancer.

In some examples, the ovarian cancer includes but is not limited to the following types: platinum sensitive type and platinum resistant type.

In some examples, the tumor disease is gastric cancer.

In some examples, the gastric cancer includes but is not limited to the following types: adenocarcinoma, adenosquamous carcinoma, squamous cell carcinoma, undifferentiated carcinoma and neuroendocrine tumor.

In some examples, the tumor disease is pancreatic cancer.

In some examples, the pancreatic cancer includes but is not limited to the following types: epithelial tumor, exocrine tumor, borderline tumor, ductal adenocarcinoma, endocrine tumor, mature teratoma, mesenchymal tumor, malignant lymphoma and secondary tumor.

In some examples, the tumor disease is bladder cancer.

In some examples, the bladder cancer includes but is not limited to the following types: urothelial (transitional cell) carcinoma, squamous cell cancer and adenocarcinoma.

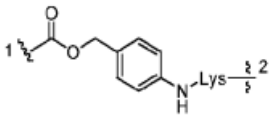
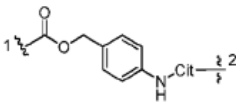
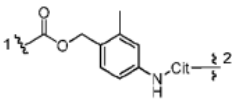
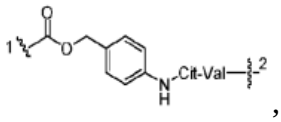
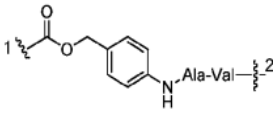
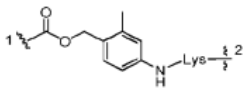
In some examples, the tumor disease is urinary tract epithelial cancer.

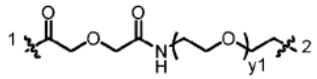
In some examples, the urinary tract epithelial cancer includes but is not limited to the following types: basal type, lumen type and wild type urinary tract epithelial cancers.

In some examples, the tumor disease is lung cancer.

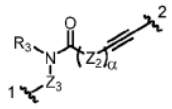
In some examples, the lung cancer includes but is not limited to the following types: small cell lung cancer and non-small cell lung cancer.

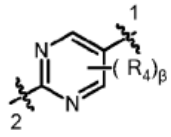
In some examples, the conjugate has the following structure:

L_1 is selected from , , , , , and ; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

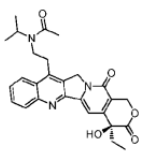
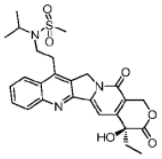
L_2 is ; wherein y_1 is 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is selected from 5-6-membered heteroaromatic rings, such as pyrazole or triazole;

L_4 is , wherein Z_2 is selected from C_{1-3} alkylene; R_3 is H; Z_3 is selected from C_{1-3} alkylene; α is 0, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

E is ; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

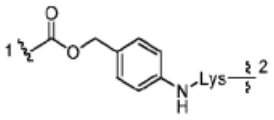
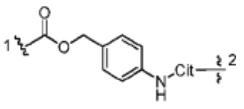
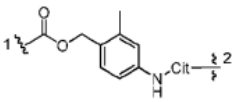
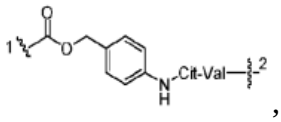
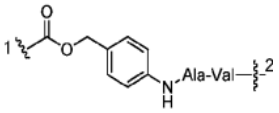
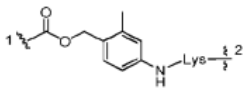
m_1, m_2 and m_3 are all 1;

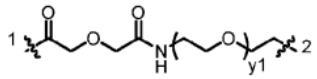
the bioactive molecule is selected from  and ; preferably, the bioactive molecule is attached to the position 1 of L_1 through its own hydroxyl;

γ is selected from integers from 3 to 8 (for example, 3, 4, 5, 6, 7 or 8);

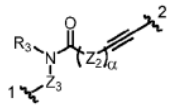
A is Sacituzumab or an antigen-binding fragment thereof.

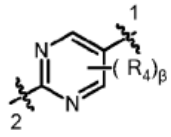
In some examples, the conjugate has the following structure:

L_1 is selected from , , , , , and ; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

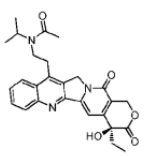
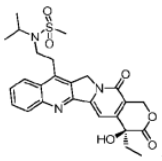
L_2 is ; wherein y_1 is 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is selected from 5-6-membered heteroaromatic rings, such as pyrazole or triazole;

L_4 is , wherein Z_2 is selected from C_{1-3} alkylene; R_3 is H; Z_3 is selected from C_{1-3} alkylene; α is 1, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

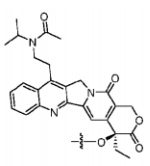
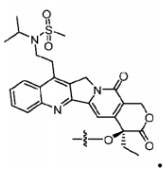
E is ; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

m_1, m_2 and m_3 are all 1;

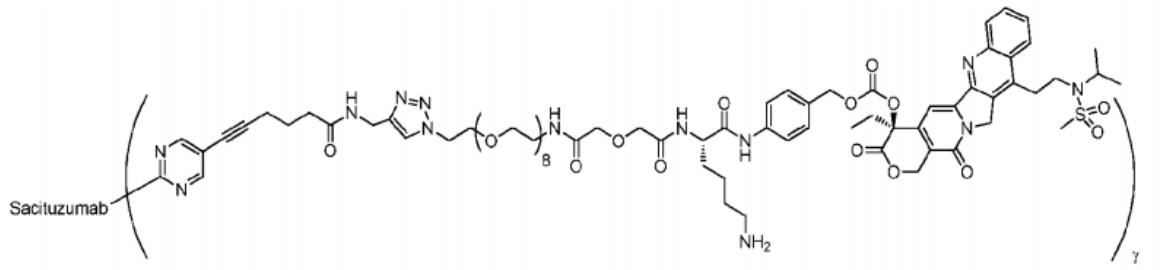
the bioactive molecule is selected from  and ; preferably, the bioactive molecule is attached to the position 1 of L_1 through its own hydroxyl;

γ is selected from integers from 3 to 8 (for example, 3, 4, 5, 6, 7 or 8); and

A is Sacituzumab or an antigen-binding fragment thereof.

In some examples, D is selected from  and .

In some technical solutions, the conjugate is conjugate A with a structure represented by the following formula:



Conjugate A

wherein γ is an integer from 1 to 10; preferably, γ is selected from integers from 5 to 8.

In some examples, the DAR value of the conjugate is 1-12; preferably 1-10; further preferably, the DAR value is 5-8; for example, the DAR value is 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9 and 8.0.

The present disclosure provides a method for treating a tumor disease, which comprises a step of administering a therapeutically effective amount of the biologically active conjugate of formula (I) as described above and/or a pharmaceutical composition comprising the biologically active conjugate of formula (I) to an individual in need thereof.

In another aspect, the present disclosure provides use of a pharmaceutical composition comprising the biologically active conjugate as described herein in the manufacture of a medicament for the treatment of a tumor disease, wherein the tumor disease is selected from the tumor diseases as described herein.

In some examples, the tumor disease is an unresectable locally advanced or metastatic solid tumor that has failed standard treatments, has no standard treatment regimen, or is not suitable for standard treatments at the present stage. In some examples, the standard treatment refers to the standard treatment regimens for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, that tumor disease is a tumor that has failed and/or recurred after first-line chemotherapeutics. In some examples, the first-line chemotherapeutics refer to the first-line chemotherapeutics for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, the tumor disease is a tumor that has failed and/or recurred after radiotherapy. In some examples, the radiotherapy refers to the radiotherapy regimens for the

tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some example, that tumor disease is a tumor that has failed and/or recurred after targeted drugs or immunotherapy. In some examples, the targeted drug or immunotherapy refers to the targeted drug or immunotherapy for the tumor disease as recommended by NCCN guidelines and CSCO guidelines for diagnosis and treatment.

In some examples, the tumor disease includes but is not limited to breast cancer, gastric cancer, lung cancer, ovarian cancer, urinary tract epithelial cancer, esophageal cancer, liver cancer, colorectal cancer, cervical cancer, endometrial cancer, pancreatic cancer, bladder cancer, or brain tumor; preferably breast cancer (such as triple negative breast cancer or Her2 positive breast cancer), ovarian cancer (such as ovarian epithelial cancer), gastric cancer, lung cancer, pancreatic cancer, bladder cancer, or urinary tract epithelial cancer; more preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer, gastric cancer, lung cancer or pancreatic cancer; further preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer or gastric cancer.

In some examples, the tumor disease is breast cancer.

In some examples, the breast cancer includes but is not limited to the following types: Luminal type A, Luminal type B, Her-2 positive type, and triple negative type.

In some examples, the tumor disease is triple negative breast cancer.

In some examples, the tumor disease is Her2 positive breast cancer.

In some examples, the tumor disease is ovarian cancer.

In some examples, the ovarian cancer includes but is not limited to the following types: platinum sensitive type and platinum resistant type.

In some examples, the tumor disease is gastric cancer.

In some examples, the gastric cancer includes but is not limited to the following types: adenocarcinoma, adenosquamous carcinoma, squamous cell carcinoma, undifferentiated carcinoma and neuroendocrine tumor.

In some examples, the tumor disease is pancreatic cancer.

In some examples, the pancreatic cancer includes but is not limited to the following types: epithelial tumor, exocrine tumor, borderline tumor, ductal adenocarcinoma, endocrine tumor, mature teratoma, mesenchymal tumor, malignant lymphoma and secondary tumor.

In some examples, the tumor disease is bladder cancer.

In some examples, the bladder cancer includes but is not limited to the following types: urothelial (transitional cell) carcinoma, squamous cell cancer and adenocarcinoma.

In some examples, the tumor disease is urinary tract epithelial cancer.

In some examples, the urinary tract epithelial cancer includes but is not limited to the following types: basal type, lumen type and wild type urinary tract epithelial cancers.

In some examples, the tumor disease is lung cancer.

In some examples, the lung cancer includes but is not limited to the following types: small cell lung cancer and non-small cell lung cancer. In some examples, the pharmaceutical composition comprises the biologically active conjugate and a pharmaceutically acceptable carrier and/or excipient.

In some examples, the biologically active conjugate or the pharmaceutical composition is administered once every 7-35 days, preferably once every 7-28 days, such as once every 7 days, 14 days, 21 days, 28 days or 35 days.

In some examples, the route of administration of the conjugate or pharmaceutical composition includes but is not limited to oral administration, percutaneous injection, rectal administration, mucosal administration, intramuscular injection, intramedullary injection, intravenous injection, or intraperitoneal injection, and preferably intravenous injection.

In some examples, the dose of the biologically active conjugate each time based on the body weight of a patient is 1 mg/kg to 30 mg/kg; preferably 1 mg/kg to 20 mg/kg; more preferably 2 mg/kg to 12 mg/kg; further preferably 2-5 mg/kg, 4-7 mg/kg, 6-9 mg/kg, 8-11 mg/kg, 10-13 mg/kg, or 12-15 mg/kg; for example: 2 mg/kg, 2.5 mg/kg, 3 mg/kg, 3.5 mg/kg, 4 mg/kg, 4.5 mg/kg,

5 mg/kg, 5.5 mg/kg, 6 mg/kg, 6.5 mg/kg, 7 mg/kg, 7.5 mg/kg, 8 mg/kg, 8.5mg/kg, 9 mg/kg, 9.5 mg/kg, 10 mg/kg, 11 mg/kg or 12 mg/kg.

In some examples, the administration regimen of the biologically active conjugate is divided into one or more administration stages (for example, one, two, three or four stages), and the administration cycle and dose at each stage are independently selected from the above-mentioned administration cycles or doses.

In some examples, the use or method of the present disclosure results in tumor elimination or volume reduction.

In some examples, the use or method of the present disclosure results in a tumor volume reduction of at least 5%, at least 10%, at least 15%, at least 20%, at least 30% or at least 40%.

Definitions

Unless otherwise defined below, all technical and scientific terms used herein are intended to have the same meaning as commonly understood by those skilled in the art. References to technologies used herein are intended to refer to technologies commonly understood in the art, including those changes to technologies obvious to those skilled in the art or replacements of equivalent technologies. Although it is believed that the following terms are well understood by those skilled in the art, the following definitions are set forth to better explain the present invention.

Drug-antibody ratio (DAR) refers to the average loading of small molecular toxin drugs by antibodies in conjugates. Although for a specific conjugate molecule, the binding ratio of the small molecule toxin drug moiety to the antibody moiety has an exact value, it should be understood that when used to describe a sample containing many molecules, this value refers to an average value calculated according to the percentages of different specific conjugate molecules, and this average loading is called the average coupling ratio or "DAR" herein.

NCCN guidelines refer to the clinical practice guidelines for various malignant tumors issued by the National Comprehensive Cancer Network.

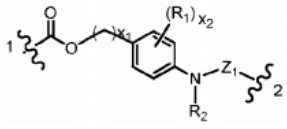
CLAIMS

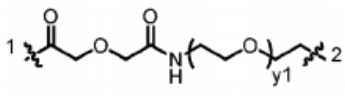
1. Use of a biologically active conjugate represented by formula (I) in preparation of a medicament for treating a tumor disease;

$$\{D\text{-}[L_1\text{-}(L_2)_{m1}\text{-}(L_3)_{m2}\text{-}(L_4)_{m3}\text{-}E]\}_\gamma\text{-}A$$

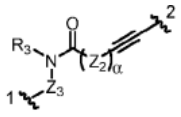
Formula (I)

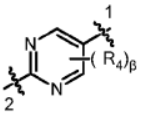
wherein,

L_1 is ; wherein R_1 and R_2 are each independently hydrogen (such as protium or deuterium), halogen, carboxylate, sulfonate, cyano, $C_{1\text{-}6}$ alkyl, halogenated $C_{1\text{-}6}$ alkyl, cyano-substituted $C_{1\text{-}6}$ alkyl (such as $-CH_2CN$), $C_{1\text{-}6}$ alkoxy, $C_{2\text{-}10}$ alkenyl or $C_{2\text{-}10}$ alkynyl; Z_1 is an amino acid or a peptide consisting of 2-10 amino acids; x_1 and x_2 are each independently 0, 1, 2, 3, 4, 5 or 6; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

L_2 is ; wherein y_1 is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is selected from 5-12-membered heteroaromatic rings;

L_4 is , wherein Z_2 is selected from $C_{1\text{-}6}$ alkylene, $C_{2\text{-}10}$ alkenylene, $C_{2\text{-}10}$ alkynylene, and $C_{3\text{-}8}$ cycloalkylene; R_3 is selected from H and $C_{1\text{-}6}$ alkyl; Z_3 is absent or selected from $C_{1\text{-}6}$ alkylene; or, R_3 and Z_3 together with the nitrogen atom to which they are attached form 4-8-membered heterocyclyl; α is 0, 1, 2, 3, 4, 5 or 6, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

E is  ; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

m_1, m_2 and m_3 are each independently 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10;

D is a bioactive molecular fragment;

γ is selected from integers from 1 to 10; preferably, γ is selected from integers from 3 to 8 (such as 3, 4, 5, 6, 7 or 8); and

A is a monoclonal antibody against Trop-2 or an antigen-binding fragment thereof.

2. The use according to claim 1, wherein the tumor disease is an unresectable locally advanced or metastatic solid tumor that has failed standard treatments, has no standard treatment regimen, or is not suitable for standard treatments at the present stage.

3. The use according to claim 1 or 2, wherein the tumor disease includes but is not limited to breast cancer (such as Luminal type A, Luminal type B, Her-2 positive and triple negative type breast cancers), gastric cancer, lung cancer, ovarian cancer, urinary tract epithelial cancer, esophageal cancer, liver cancer, colorectal cancer, cervical cancer, endometrial cancer, pancreatic cancer, bladder cancer, or brain tumor; preferably breast cancer (such as triple negative breast cancer or Her2 positive breast cancer), ovarian cancer (such as ovarian epithelial cancer), gastric cancer, lung cancer, pancreatic cancer, bladder cancer, or urinary tract epithelial cancer; more preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer, gastric cancer, lung cancer or pancreatic cancer; further preferably, the tumor disease is triple negative breast cancer, Her2 positive breast cancer, ovarian cancer or gastric cancer;

preferably, the ovarian cancer is selected from platinum-sensitive ovarian cancer and platinum-resistant ovarian cancer;

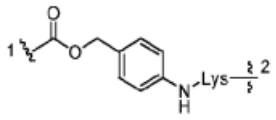
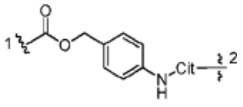
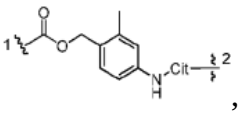
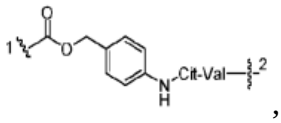
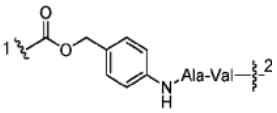
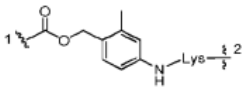
preferably, the gastric cancer is selected from gastric adenocarcinoma, gastric adenosquamous carcinoma, gastric squamous cell carcinoma, gastric undifferentiated carcinoma and gastric neuroendocrine tumor;

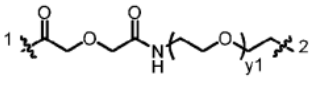
preferably, the pancreatic cancer is selected from pancreatic epithelial tumor, pancreatic exocrine tumor, pancreatic borderline tumor, pancreatic ductal adenocarcinoma, pancreatic endocrine tumor, pancreatic mature teratoma, pancreatic mesenchymal tumor, pancreatic malignant lymphoma and pancreatic secondary tumor;

preferably, the bladder cancer is selected from urothelial (transitional cell) carcinoma, bladder squamous cell cancer and bladder adenocarcinoma; preferably, the urinary tract epithelial cancer is selected from basal type, lumen type and wild type urinary tract epithelial cancers; and

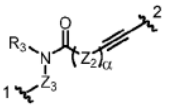
preferably, the lung cancer is selected from small cell lung cancer and non-small cell lung cancer.

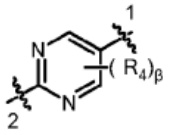
4. The use according to any one of claims 1 to 3, wherein the conjugate has the following structure:

L_1 is selected from , , , , , and ; and the position 1 of L_1 is attached to D, and the position 2 of L_1 is attached to L_2;

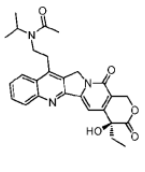
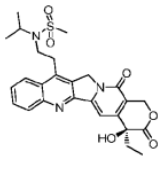
L_2 is ; wherein y_1 is 3, 4, 5, 6, 7, 8, 9 or 10; and the position 1 of L_2 is attached to L_1, and the position 2 of L_2 is attached to L_3;

L_3 is selected from 5-6-membered heteroaromatic rings, such as pyrazole or triazole;

L_4 is , wherein Z_2 is selected from C_{1-3} alkylene; R_3 is H; Z_3 is selected from C_{1-3} alkylene; α is 1, and the position 2 of L_4 is attached to E, and the position 1 of L_4 is attached to L_3;

E is ; wherein each R_4 is independently hydrogen (such as protium or deuterium), β is 0, 1 or 2, and the position 2 of E is attached to A (such as with sulfhydryl on A), and the position 1 of E is attached to L_4;

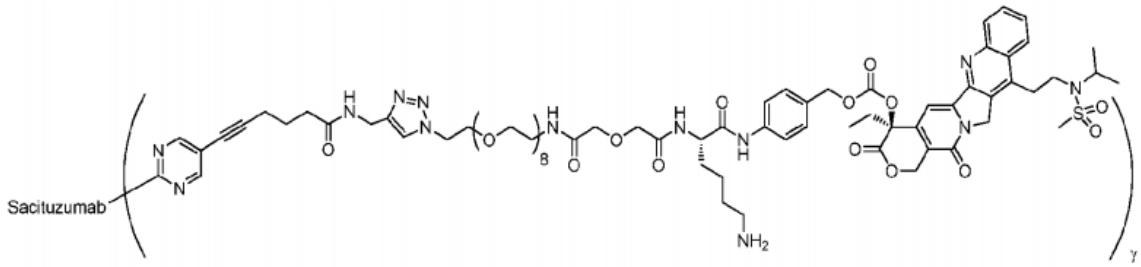
m_1, m_2 and m_3 are all 1;

the bioactive molecule is selected from  and ; preferably, the bioactive molecule is attached to the position 1 of L_1 through its own hydroxyl;

γ is selected from integers from 3 to 8 (for example, 3, 4, 5, 6, 7 or 8); and

A is Sacituzumab or an antigen-binding fragment thereof.

5. The use according to any one of claims 1 to 4, wherein the structure of the conjugate is as follows:



wherein γ is an integer from 1 to 10; preferably, γ is selected from integers from 5 to 8;

preferably, the DAR value of the conjugate is 1-12; more preferably, the DAR value of the conjugate is 1-10; further preferably, the DAR value is 5-8; for example, the DAR value is 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9 or 8.0.

6. Use of a pharmaceutical composition comprising the biologically active conjugate according to any one of claims 1, 4 or 5 in the manufacture of a medicament for the treatment of a tumor disease, wherein the tumor disease is selected from the tumor diseases as defined in any one of claims 1 to 3.

7. The use according to claim 6, wherein the pharmaceutical composition comprises the biologically active conjugate and a pharmaceutically acceptable carrier and/or excipient.

8. The use according to claim 6 or 7, wherein the pharmaceutical composition is to be administered once every 7-35 days, preferably once every 7-28 days, such as once every 7 days, 14 days, 21 days, 28 days or 35 days.

9. The use according to any one of claims 6 to 8, wherein the pharmaceutical composition is to be administered via an administration route including but is not limited to oral administration, percutaneous injection, rectal administration, mucosal administration, intramuscular injection, intramedullary injection, intravenous injection, intraperitoneal injection, and preferably, intravenous injection.

10. The use according to any one of claims 6 to 9, wherein a dose of the pharmaceutical composition comprising the biologically active conjugate each time based on the body weight of a patient is 1 mg/kg to 30 mg/kg; preferably 1 mg/kg to 20 mg/kg; more preferably 2 mg/kg to 12 mg/kg; further preferably 2-5 mg/kg, 4-7 mg/kg, 6-9 mg/kg, 8-11 mg/kg, 10-13 mg/kg, or 12-15 mg/kg.

11. The use according to any one of claims 6 to 10, wherein the pharmaceutical composition is to be administered in one or more administration stages (for example, one, two,

three or four stages), the administration cycle at each stage is as claimed in claim 8, and/or the administration dose at each stage is as claimed in claim 10.