

## Disitamab vedotin

## Chemical Properties

CAS No. : 2136633-23-1

Formula:

Molecular Weight: 149 kDa

Disitamab vedotin

Storage: Keep away from direct sunlight

-20°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	Disitamab vedotin (RC48) is an antibody-drug conjugate (ADC) and a HER2-targeted cytotoxic agent, consisting of an anti-HER2 monoclonal antibody conjugated to MMAE via a cleavable linker, used for the treatment of HER2-expressing solid tumors including gastric cancer, breast cancer, and urothelial carcinoma.
Targets(IC50)	EGFR,Antibody-Drug Conjugates (ADCs)
In vitro	<p><b>Methods:</b> Cell proliferation counting, cell cycle, and apoptosis detection assays were used. HER2-positive breast cancer cells BT474, SKBR3, HCC1954, HCC1419 and their drug-resistant sublines were selected and incubated with Disitamab vedotin at concentrations of 0.001-10 nM for 3 days.</p> <p><b>Results:</b> Disitamab vedotin significantly inhibited cell proliferation, induced G2/M phase arrest and apoptosis, efficiently released cytotoxic payload, and maintained strong activity in T-DM1, lapatinib, and neratinib-resistant cells.[1]</p> <p><b>Methods:</b> Transcriptome sequencing and qPCR experiments were used to detect the in vitro activity of Disitamab vedotin. Bladder cancer cells SW780 and 5637 were selected and incubated with 25 µg/mL Disitamab vedotin for 48 hours.</p> <p><b>Results:</b> Disitamab vedotin significantly upregulated the expression of core genes including TNF, IL1B, and CXCL8. Differentially expressed genes were mainly enriched in TNF signaling pathway and NF-κB signaling pathway, confirming that it exerts its effects by regulating the TNF pathway.[2]</p>
In vivo	<p><b>Methods:</b> Female SCID mice were used to establish an L-JIMT-1 breast cancer lung metastasis model. <math>1 \times 10^5</math> L-JIMT-1 cells were injected via tail vein, and a single dose of Disitamab vedotin (5 mg/kg) was administered via tail vein at week 8, with PBS as the control vehicle.</p> <p><b>Results:</b> Disitamab vedotin significantly inhibited the growth of lung metastases, reduced the number of metastases and decreased lesion diameter, showed superior efficacy to T-DM1 and T-DXd, prolonged mouse survival, and demonstrated prominent in vivo antitumor activity.[3]</p>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.0067 mL	0.0336 mL	0.0671 mL
5 mM	0.0013 mL	0.0067 mL	0.0134 mL
10 mM	0.0007 mL	0.0034 mL	0.0067 mL
50 mM	0.0001 mL	0.0007 mL	0.0013 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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