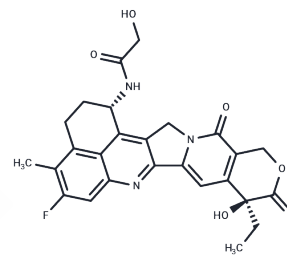


Dxd

## Chemical Properties

CAS No. : 1599440-33-1  
 Formula: C<sub>26</sub>H<sub>24</sub>FN<sub>3</sub>O<sub>6</sub>  
 Molecular Weight: 493.48  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Dxd (OQM5SD32BQ) is a potent DNA topoisomerase I inhibitor (IC <sub>50</sub> = 0.31 μM). Dxd was used as a conjugate drug for HER2-targeted ADCs.
Targets(IC50)	ADC Cytotoxin,Topoisomerase
In vitro	<p><b>METHODS:</b> Human cancer cell lines KPL-4, NCI-N87, SK-BR-3 and MDA-MB-468, HER2-positive KPL-4, NCI-N87 and SK-BR-3 cell lines, and MDA-MB-468 cell lines were treated with Dxd for 6 days. Cell viability was measured using CellTiter-Glo luminescent cell viability assay reagent.</p> <p><b>RESULTS:</b> Dxd showed cytotoxicity against human cancer cell lines KPL-4, NCI-N87, SK-BR-3, and MDA-MB-468 with IC<sub>50</sub> of 1.43 nm-4.07 nM ng/mL. Dxd significantly inhibited HER2 positive KPL-4, NCI-N87 and SK-BR-3 cell lines with IC<sub>50</sub> of 26.8, 25.4 and 6.7 ng/mL, respectively. However, no such inhibitory effect was observed in MDA-MB-468 cells treated with Dxd (IC<sub>50</sub> &gt;10000 ng/mL). [1]</p>
In vivo	<p><b>METHODS:</b> To investigate the antitumor activity of Dxd, DS-8201a (Dxd as payload) (10 mg/kg) was injected intravenously in a HER2-positive mouse model with KPL4, JIMT-1, and Capan-1 and in HER2 low expression ST565 vs Mouse model of ST313 with a single injection.</p> <p><b>RESULTS:</b> Dxd showed potent antitumor activity. [1]</p>

## Solubility Information

Solubility	H <sub>2</sub> O: insoluble DMSO: 51.5 mg/mL (104.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.0264 mL	10.1321 mL	20.2642 mL
5 mM	0.4053 mL	2.0264 mL	4.0528 mL
10 mM	0.2026 mL	1.0132 mL	2.0264 mL
50 mM	0.0405 mL	0.2026 mL	0.4053 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.

### Reference

Ogitani Y, et al. DS-8201a, A Novel HER2-Targeting ADC with a Novel DNA Topoisomerase I Inhibitor, Demonstrates a Promising Antitumor Efficacy with Differentiation from T-DM1. Clin Cancer Res. 2016 Oct 15;22(20):5097-5108.

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