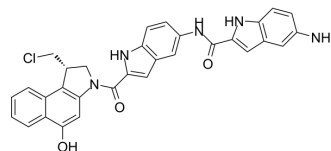


## DC0-NH2

Cat. No.:	HY-129379
CAS No.:	615538-51-7
Molecular Formula:	C <sub>31</sub> H <sub>24</sub> ClN <sub>5</sub> O <sub>3</sub>
Molecular Weight:	550.01
Target:	ADC Cytotoxin
Pathway:	Antibody-drug Conjugate/ADC Related
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (90.91 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	1.8181 mL	9.0907 mL	18.1815 mL	
5 mM	0.3636 mL	1.8181 mL	3.6363 mL	
10 mM	0.1818 mL	0.9091 mL	1.8181 mL	

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

DC0-NH2 is an effector moiety for ADC and a simplified analog of DC1 with better stability. DC0-NH2 is about 1000-fold more cytotoxic than commonly used anticancer agents (ex. Doxorubicin). DC0-NH2 can bind to the minor groove of DNA, followed by alkylation of adenine residues by its propabenzindole (CBI) component<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

Duocarmycins

#### In Vitro

DC0-NH2 (0-3 nM; 72 hours) is highly potent against Ramos, Namalwa, and HL60/s cells with IC<sub>50</sub> values in the 1 pM to 10 pM range, and has 100 pM range when tested on COLO 205 cells<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay<sup>[1]</sup>

Cell Line:	Ramos, Namalwa, HL60/s, and COLO 205 Cancer Cells
Concentration:	0-3 nM
Incubation Time:	72 hours

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Result:

Inhibited Namalwa and HL60/s cells with IC<sub>50</sub>s of 7 and 30 pM, respectively.

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## REFERENCES

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[1]. Zhao RY, et al. Synthesis and biological evaluation of antibody conjugates of phosphate prodrugs of cytotoxic DNA alkylators for the targeted treatment of cancer. J Med Chem. 2012 Jan 26;55(2):766-82.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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