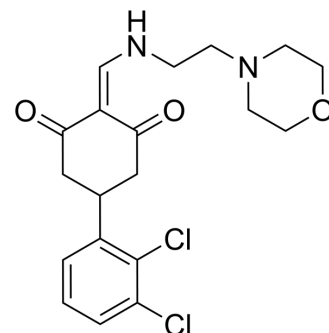


## DC-LC3in-D5

<b>Cat. No.:</b>	HY-141882		
<b>CAS No.:</b>	2868312-73-4		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>22</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	397.3		
<b>Target:</b>	Autophagy; Atg8/LC3		
<b>Pathway:</b>	Autophagy		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



## SOLVENT & SOLUBILITY

### In Vitro

DMSO : 35.71 mg/mL (89.88 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5170 mL	12.5849 mL	25.1699 mL
	5 mM	0.5034 mL	2.5170 mL	5.0340 mL
	10 mM	0.2517 mL	1.2585 mL	2.5170 mL

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

## BIOLOGICAL ACTIVITY

### Description

DC-LC3in-D5 acts as an autophagy inhibitor by attenuating LC3B lipidation. DC-LC3in-D5 binds with LC3B. DC-LC3in-D5 disrupts the LC3B-LBP2 interaction with an IC<sub>50</sub> of 200 nM. DC-LC3in-D5 may contribute to anti-HCV or combination researchs in cancer through inhibiting autophagy<sup>[1]</sup>.

### In Vitro

DC-LC3in-D5 demonstrates high selectivity to LC3A/B in the proteome. DC-LC3in-D5 exhibits a potent covalent reactivity and selectivity to LC3A/B in HeLa cells<sup>[1]</sup>.

?Treatment of HeLa cells with DC-LC3in-D5 (3-30 μM) results in disruption of LC3B lipidation, inhibition of autophagic vesicle formation, and accumulation of p62<sup>[1]</sup>.

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

Western Blot Analysis<sup>[1]</sup>

Cell Line:	HeLa cells
Concentration:	3, 10, 30 μM

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Incubation Time:	16 hours
Result:	Pre-treated accumulated significant more p62 than DMSO-treated control samples. Attenuated LC3-I/II lipidation in cells exposed to autophagy inducing conditions.

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## REFERENCES

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[1]. Shijie Fan, et al. Inhibition of Autophagy by a Small Molecule through Covalent Modification of the LC3 Protein. *Angew Chem Int Ed Engl.* 2021 Dec 6;60(50):26105-26114.

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

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