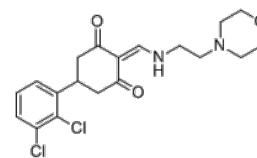


**Product Name** : DC-LC3in-D5  
**Cat. No.** : PC-72653  
**CAS No.** : 2868312-73-4  
**Molecular Formula** : C<sub>19</sub>H<sub>22</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>3</sub>  
**Molecular Weight** : 397.296  
**Target** : Autophagy  
**Solubility** : 10 mM in DMSO



## Biological Activity

DC-LC3in-D5 is a small molecule covalent modulator of **LC3A/B** and **autophagy** inhibitor, binds to LC3B and covalently modifies Lysine 49.

DC-LC3in-D5 selectively reacts with LC3A/B in vitro (IC<sub>50</sub>=200 nM, FP assays)

DC-LC3in-D5 exhibits a potent covalent reactivity and selectivity to LC3A/B in HeLa cells, disrupts the ATG7-LC3B interaction and blocks LC3B lipidation.

DC-LC3in-D5 compromises LC3B lipidation in vitro and in HeLa cells, leading to deficiency in the formation of autophagic structures and autophagic substrate degradation.

DC-LC3in-D5 is a powerful tool for autophagy research with little cellular toxicity.

The autophagic ubiquitin-like protein LC3 functions through interactions with LC3-interaction regions (LIRs) of other autophagy proteins, including autophagy receptors, which stands out as a promising protein-protein interaction (PPI) target for the intervention of autophagy.

## References

Shijie Fan, et al. *Angew Chem Int Ed Engl.* 2021 Dec 6;60(50):26105-26114.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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