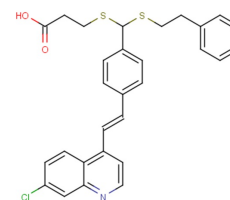


LV-320

Chemical Properties

CAS No.:	T11896
Formula:	C ₂₉ H ₂₆ ClNO ₂ S ₂
Molecular Weight:	520.11
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	LV-320 inhibits ATG4B enzymatic activity, blocks autophagic flux in cells, and is stable, non-toxic and active in vivo. LV-320 is a potent and uncompetitive ATG4B inhibitor with an IC ₅₀ of 24.5 μM and a K _d of 16 μM.
Targets(IC ₅₀)	ATG4B: (kd)16 μM
In vitro	LV-320 (120 μM; 48 hours; MDA-MB-231 cells) treatment results in an increase in LC3B-II, indicating that LV-320 blocks autophagic flux[1].LV-320 (0-120 μM; SKBR3, MCF7, JIMT1, and MDA-MB-231 cells) treatment results in a dose-dependent increase in endogenous LC3B-II and protein p62 levels in all four cell lines[1].
In vivo	LV-320 (100-200 mg/kg; oral gavage; three times over two days; GFP-LC3 mice) treatment results in a terminal blood level of 169 μM and a liver level of 104 μM. The expression of GFP-LC3 puncta is significantly greater accumulation in LV-320 treated animals compared to controls. LC3B-II protein is also increased in LV-320-treated animals. The treatment do not cause significant toxicity in mice at either dose[1].

Solubility Information

Solubility	DMSO: 135 mg/mL (259.56 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.923 mL	9.613 mL	19.227 mL
5 mM	0.385 mL	1.923 mL	3.845 mL
10 mM	0.192 mL	0.961 mL	1.923 mL
50 mM	0.038 mL	0.192 mL	0.385 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Bosc D, et al. A new quinoline-based chemical probe inhibits the autophagy-related cysteine protease ATG4B. Sci Rep. 2018 Aug 3;8(1):11653. doi: 10.1038/s41598-018-29900-x.

Inhibitors · Natural Compounds · Compound Libraries

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