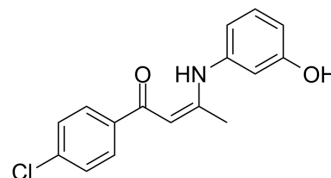


SMER18

Cat. No.:	HY-18672		
CAS No.:	944153-47-3		
Molecular Formula:	C ₁₆ H ₁₄ ClNO ₂		
Molecular Weight:	287.74		
Target:	Autophagy		
Pathway:	Autophagy		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (347.54 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.4754 mL	17.3768 mL	34.7536 mL
	5 mM	0.6951 mL	3.4754 mL	6.9507 mL
	10 mM	0.3475 mL	1.7377 mL	3.4754 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: 2.5 mg/mL (8.69 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

SMER18 is a small molecule enhancer of rapamycin which act as a mTOR-independent autophagy inducer. Target: mTOR. SMER18 induces autophagy independently of Rapamycin in mammalian cells, enhancing the clearance of autophagy substrates such as mutant huntingtin and A53T alpha-synuclein, which are associated with Huntington's disease and familial Parkinson's disease, respectively. SMER18 acts either independently or downstream of the target of Rapamycin, attenuates mutant huntingtin-fragment toxicity in Huntington's disease cell and Drosophila melanogaster models, which suggests therapeutic potential.

REFERENCES

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

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