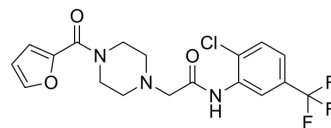


## ML348

Cat. No.:	HY-100736		
CAS No.:	899713-86-1		
Molecular Formula:	C <sub>18</sub> H <sub>17</sub> ClF <sub>3</sub> N <sub>3</sub> O <sub>3</sub>		
Molecular Weight:	415.79		
Target:	Phospholipase		
Pathway:	Metabolic Enzyme/Protease		
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 : 25 mg/mL (60.13 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
Preparing Stock Solutions	1 mM	2.4051 mL	12.0253 mL	24.0506 mL
	5 mM	0.4810 mL	2.4051 mL	4.8101 mL
	10 mM	0.2405 mL	1.2025 mL	2.4051 mL
Please refer to the solubility information to select the appropriate solvent.				
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.01 mM); Clear solution			

### BIOLOGICAL ACTIVITY

Description	ML348 (GNF-Pf-1127) is a selective and reversible acyl-protein thioesterase 1 (APT1)/lysophospholipase 1 (LYPLA1) inhibitor with an IC <sub>50</sub> of 210 nM, and barely inhibits LYPLA2 <sup>[1]</sup> .		
IC <sub>50</sub> & Target	IC 50: 210 nM (LYPLA1)		
In Vitro	ML348 (5 μM; 3 hours ) selectively inhibits LYPLA1 in cultured 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:	HEK293T cells, murine T-cells	
	Concentration:	5 μM	

Incubation Time:	3 hours
Result:	Show potent, selective inhibition of LYPLA1.

#### In Vivo

ML348 (50 mg/kg, i.p., 3 hours) shows potent and selective activity in vivo, inhibits LYPLA1 enzymes in heart, kidney and lung in mice<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL6 male mice (3-4 months) <sup>[1]</sup>
Dosage:	50 mg/kg
Administration:	Intraperitoneal injection; 3 hours
Result:	Potent and selective inhibited LYPLA1 enzymes in heart, kidney and lung in vivo.

### CUSTOMER VALIDATION

- Adv Mater. 2021 Dec;33(49):e2103471.
- Nat Biomed Eng. 2019 Apr;3(4):306-317.
- Nat Commun. 2020 Sep 21;11(1):4765.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

[1]. Adibekian A et al. Characterization of a Selective, Reversible Inhibitor of Lysophospholipase 1 (LYPLA1). National Center for Biotechnology Information (US); 2010- 2013 Apr 08.

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

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