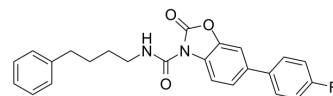


## ARN14974

Cat. No.:	HY-103592
CAS No.:	1644158-57-5
Molecular Formula:	C <sub>24</sub> H <sub>21</sub> FN <sub>2</sub> O <sub>3</sub>
Molecular Weight:	404.43
Target:	Ceramidase
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (123.63 mM; ultrasonic and warming and heat to 60°C)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.4726 mL	12.3631 mL	24.7262 mL
				5 mM	0.4945 mL	2.4726 mL	4.9452 mL
				10 mM	0.2473 mL	1.2363 mL	2.4726 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: 1 mg/mL (2.47 mM); Suspended solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (2.47 mM); Clear solution						

### BIOLOGICAL ACTIVITY

Description	ARN14974, a benzoxazolone carboxamide, is a potent and systemically active inhibitors of intracellular acid ceramidase (IC <sub>50</sub> =79 nM) <sup>[1]</sup> .
In Vitro	ARN14974 (20 μM; 24 hours; SW403 and Raw 264.7 cells) inhibits acid ceramidase (AC) in a complex cellular environment, leading to the intended biochemical response, that is, increased ceramide and decreased sphingosine levels <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	ARN14974 (10 mg/kg; i.p.; mice) causes a substantial reduction in AC activity in multiple organs, including brain, liver, heart, lungs, and kidney <sup>[1]</sup> . ARN14974 (10 mg/kg; i.p.) quickly enters the bloodstream after a single intraperitoneal administration in mice, reaching a maximal plasma concentration, C <sub>max</sub> , of 1767.9 ng/mL and displaying a half-life time of 458 min in circulation. ARN14974 (1

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mg/kg; i.v.) shows a  $C_{max}$  and a half-life time of 628 ng/mL and 72 min, respectively<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Pizzirani D, et al. Benzoxazolone carboxamides: potent and systemically active inhibitors of intracellular acid ceramidase. *Angew Chem Int Ed Engl.* 2015;54(2):485-489.

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

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