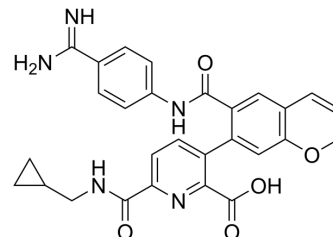


## Avoralstat

Cat. No.:	HY-16735		
CAS No.:	918407-35-9		
Molecular Formula:	C <sub>28</sub> H <sub>27</sub> N <sub>5</sub> O <sub>5</sub>		
Molecular Weight:	513.54		
Target:	Ser/Thr Protease		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	1 year
		-20°C	6 months



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (97.36 mM; ultrasonic and warming and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.9473 mL	9.7363 mL	19.4727 mL
	5 mM	0.3895 mL	1.9473 mL	3.8945 mL
	10 mM	0.1947 mL	0.9736 mL	1.9473 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (4.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (4.87 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Avoralstat (BCX4161), a potent and orally active plasma kallikrein (PKK) inhibitor, is used for hereditary angioedema research<sup>[1][2]</sup>.

#### In Vitro

C1 inhibitor (C1INH) is the primary regulator of contact activation, both by inhibiting the conversion of prekallikrein to plasma kallikrein (PKK) by FXIIa, and by directly inhibiting PKK. PKK cleaves high molecular weight kininogen, releasing bradykinin, whose actions are responsible for the signs and symptoms of hereditary angioedema (HAE)<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- J Clin Invest. 2021 May 17;131(10):e147973.
- J Biomol Struct Dyn. 2021 Sep 22;1-12.
- bioRxiv. 2021 Jan 4.

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

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## REFERENCES

[1]. Aygoren-Pursun E, et al. Prophylaxis of hereditary angioedema attacks: A randomized trial of oral plasma kallikrein inhibition with avoralstat. J Allergy Clin Immunol. 2016 Sep;138(3):934-936.e5.

[2]. Cornpropst M, et al. Safety, pharmacokinetics, and pharmacodynamics of avoralstat, an oral plasma kallikrein inhibitor: phase 1 study. Allergy. 2016;71(12):1676-1683.

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

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