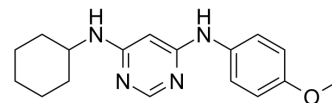


VUT-MK142

Cat. No.:	HY-122610		
CAS No.:	1313491-22-3		
Molecular Formula:	C ₁₇ H ₂₂ N ₄ O		
Molecular Weight:	298.38		
Target:	Others		
Pathway:	Others		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (83.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.3514 mL	16.7572 mL	33.5143 mL
	5 mM	0.6703 mL	3.3514 mL	6.7029 mL
	10 mM	0.3351 mL	1.6757 mL	3.3514 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 (8.38 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (8.38 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VUT-MK142 is a potent new cardiomyogenic synthetic agent promoting the differentiation of pre-cardiac mesoderm into cardiomyocytes, which may be useful to differentiate stem cells into cardiomyocytes for cardiac repair^[1].

In Vitro

VUT-MK142 possesses promising cardiomyogenic effects on various cell types. VUT-MK142 shows a remarkable effect on both P19 and C2C12 cells. Compared to CgC, VUT-MK142-treatment leads to a markedly stronger up-regulation of the expression of ANF^[1].
VUT-MK142 (1 μM, 7 day treatment) significantly (p < 0.05) increases the luciferase signal by 3.1 ± 0.3 luciferase (n = 5)-fold in P19 cells^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Moumita Koley, et al. VUT-MK142 : a new cardiomyogenic small molecule promoting the differentiation of pre-cardiac mesoderm into cardiomyocytes. Medchemcomm. 2013 Aug 1;4(8):1189-1195.

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

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