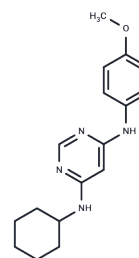


VUT-MK142

Chemical Properties

CAS No. : 1313491-22-3
 Formula: C17H22N4O
 Molecular Weight: 298.38
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	VUT-MK142 is a new cardiomyogenic small molecule promoting the differentiation of pre-cardiac mesoderm into cardiomyocytes, which may be useful to differentiate stem cells into cardiomyocytes for cardiac repair.
Targets(IC50)	Others
In vivo	VUT-MK142 was identified as the most promising candidate with respect to cardiomyogenic activity. Treatment using this novel agent induced the strongest up-regulation of expression of the cardiac marker ANF in both P19 embryonic carcinoma cells and C2C12 skeletal myoblasts. The activity of VUT-MK142 on this marker superseded CgC; moreover, the novel compound significantly up-regulated the expression of other cardiac markers, and promoted the development of beating cardiomyocytes from cardiovascular progenitor cells.

Solubility Information

Solubility	DMSO: 25 mg/mL (83.79 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.7 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.067 mL	0.3351 mL	0.6703 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.

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