

GV-58

## Chemical Properties

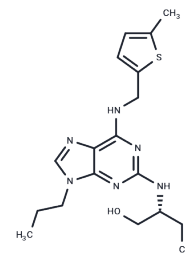
CAS No. : 1402821-41-3

Formula: C<sub>18</sub>H<sub>26</sub>N<sub>6</sub>O<sub>5</sub>

Molecular Weight: 374.5

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	GV-58 is a selective N- and P/Q-type Ca <sup>2+</sup> channels agonist (EC <sub>50</sub> : 7.21/8.81 μM for N-type/P-Q-type Ca <sup>2+</sup> channel). The inhibitory of GV-58 is 20-fold fewer for CDK kinases activity.
Targets(IC <sub>50</sub> )	Calcium Channel
In vitro	In comparison with the parent molecule, (R)-roscovitine, GV-58 has a 20-fold less potent cyclin-dependent kinase antagonist effect, a 3- to 4-fold more potent Ca <sup>2+</sup> channel agonist effect, and 4-fold higher efficacy as a Ca <sup>2+</sup> channel agonist. GV-58 had no agonist activity (up to 100 μM) on the L-type α-subunit we tested (Cav1.3).

## Solubility Information

Solubility	DMSO: 90 mg/mL (240.32 mM),Sonication is recommended. Methanol: 55 mg/mL (146.86 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (8.81 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

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	1mg	5mg	10mg
1 mM	2.6702 mL	13.3511 mL	26.7023 mL
5 mM	0.534 mL	2.6702 mL	5.3405 mL
10 mM	0.267 mL	1.3351 mL	2.6702 mL
50 mM	0.0534 mL	0.267 mL	0.534 mL

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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

Tarr TB, et al. Evaluation of a novel calcium channel agonist for therapeutic potential in Lambert-Eaton myasthenic syndrome. *J Neurosci*. 2013 Jun 19;33(25):10559-67.

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