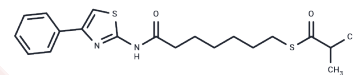


## PTACH

## Chemical Properties

CAS No. : 848354-66-5  
 Formula: C<sub>20</sub>H<sub>26</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>  
 Molecular Weight: 390.56  
 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	PTACH (Cpd 51) (NCH-51) is a SAHA-based inhibitor of human HDAC. It can potently inhibit the growth of various human Y cells (EC <sub>50</sub> : 1 to 10 μM).
Targets(IC <sub>50</sub> )	HIV Protease,HDAC
Kinase Assay	mTOR and PI3K Cellular Assays: Cellular IC <sub>50</sub> values for mTOR are determined using p53 <sup>+/+</sup> MEFs. Cells are treated with vehicle or increasing concentrations of Torin 2 for 1 h and then lyse. Phosphorylation of S6K1 Thr-389 is monitored by immunoblotting using a phospho-specific antibody. Meanwhile, cellular IC <sub>50</sub> values for PI3Ka are determined based on phosphorylation of Akt Thr-308 in p53 <sup>+/+</sup> /mLST8 <sup>+/+</sup> MEFs or human PC3 cells expressing the S473D mutant of Akt1.

## Solubility Information

Solubility	DMSO: 55 mg/mL (140.82 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: 2 mg/mL (5.12 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	2.5604 mL	12.8021 mL	25.6043 mL
5 mM	0.5121 mL	2.5604 mL	5.1209 mL
10 mM	0.256 mL	1.2802 mL	2.5604 mL
50 mM	0.0512 mL	0.256 mL	0.5121 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

Suzuki T, et al. J Med Chem. 2005 Feb 24;48(4):1019-32.

Liu H, Zhang Q, He X, et al. Structural insights into ligand recognition and activation of the medium-chain fatty acid-sensing receptor GPR84. Nature Communications. 2023, 14(1): 3271.

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