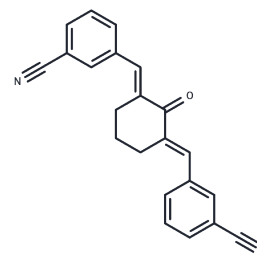


NiCur

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 2674753-39-8 |
| Formula: | C ₂₂ H ₁₆ N ₂ O |
| Molecular Weight: | 324.38 |
| 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 | NiCur is an effective and selective inhibitor of CBP histone acetyltransferase (HAT), with an IC ₅₀ of 0.35 μM. NiCur blocks CBP HAT activity, downregulates p53 activation and inhibits apoptosis, while promoting methylation of Lysine 27 on histone H3, inhibiting Caspase 3 activity and PARP cleavage. |
| Targets(IC ₅₀) | Apoptosis, Epigenetic Reader Domain, Caspase, Histone Acetyltransferase, PARP |
| In vitro | When NiCur acts on U2OS cells within the concentration range of 0.5 - 1 μM, it can reduce Dox-induced p53K382ac, p53S15p, and p53 levels in a dose-dependent manner [1]. At a concentration of 1.5 μM, NiCur can decrease H3K27ac levels; similarly, at 1.5 μM, NiCur can restore cell proliferation capacity. In intestinal epithelial cells, NiCur downregulates Dox-mediated p53 activation but does not affect H2A.X S139p levels. NiCur can modulate gene regulatory switches, thereby reprogramming the chromatin landscape, and can block CBP HAT activity [1]. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 40 mg/mL (123.31 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (3.08 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 | 3.0828 mL | 15.414 mL | 30.828 mL |
| 5 mM | 0.6166 mL | 3.0828 mL | 6.1656 mL |
| 10 mM | 0.3083 mL | 1.5414 mL | 3.0828 mL |
| 50 mM | 0.0617 mL | 0.3083 mL | 0.6166 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

Vincek AS, et al. Inhibitor of CBP Histone Acetyltransferase Downregulates p53 Activation and Facilitates Methylation at Lysine 27 on Histone H3. *Molecules*. 2018;23(8):1930. Published 2018 Aug 2.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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