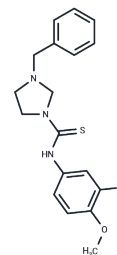


DC-5163

Chemical Properties

CAS No. : 897771-47-0
 Formula: C₁₈H₂₀ClN₃OS
 Molecular Weight: 361.89
 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	DC-5163 is a potent inhibitor of glyceraldehyde 3-phosphate dehydrogenase (GAPDH) with IC ₅₀ of 176.3 nM and K _d of 3.192 μM. DC-5163 selectively inhibits cancer cell proliferation and induces apoptosis, and partially inhibits the glycolysis pathway.
Targets(IC ₅₀)	Apoptosis,Others
In vitro	DC-5163 (100 μM; 48 hours; MDA-MB-231 cells) treatment can obviously induce apoptosis of MDA-MB-231 cells. DC-5163 inhibited the proliferation of MDA-MB-231 cells with an IC ₅₀ of 49.22 μM at 48 hours and 52.09 μM at 72 hours. Compared with the experimental control, DC-5163 also significantly reduced glucose uptake, lactic acid production and 18F-FDG uptake rate. After treatment with 25μM DC-5163 for 48 hours, it can inhibit the GAPDH activity of BT-549 cells, MCF7 cells, HCT116 cells, MDA-MB-231 cells and A549 cells.

Solubility Information

Solubility	DMSO: 300 mg/mL (828.98 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 5 mg/mL (13.82 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	2.7633 mL	13.8164 mL	27.6327 mL
5 mM	0.5527 mL	2.7633 mL	5.5265 mL
10 mM	0.2763 mL	1.3816 mL	2.7633 mL
50 mM	0.0553 mL	0.2763 mL	0.5527 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

Li T, et al. Discovery of novel glyceraldehyde-3-phosphate dehydrogenase inhibitor via docking-based virtual screening. *Bioorg Chem.* 2020 Mar;96:103620.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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