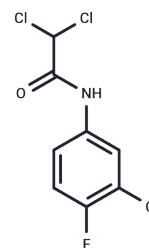


LDCA

Chemical Properties

CAS No. :	349106-80-5
Formula:	C ₈ H ₅ Cl ₃ FNO
Molecular Weight:	256.49
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	LDCA is a double-hit metabolic regulator that exhibits potent anti-proliferative activity. LDCA competitively inhibits LDH-A enzyme activity, alters mitochondrial hyperpolarization and simultaneously subverts apoptosis. LDCA has a pronounced effect in cancer cells and does not show toxicity.
Targets(IC50)	Apoptosis, Dehydrogenase
In vitro	LDCA (2-100 μ M ; 16-72 h) and Doxorubicin combination synergistically inhibit tumor progression. 15% death when cells were exposed to LDCA individually and caused 40% melanoma cell death combination synergistically with doxorubicin.[1]
In vivo	LDA (2 mg/kg, iv., 6 days ; once) combination with doxorubicin effectively alleviated tumor necrosis in mice and significantly improved their survival ability, leading to sustained limitations in tumor growth kinetics.[1]

Solubility Information

Solubility	DMSO: 90 mg/mL (350.89 mM), Sonication and heating to 60°C are 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 (12.87 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	3.8988 mL	19.4939 mL	38.9879 mL
5 mM	0.7798 mL	3.8988 mL	7.7976 mL
10 mM	0.3899 mL	1.9494 mL	3.8988 mL
50 mM	0.078 mL	0.3899 mL	0.7798 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

Saha S, et al. The dual-hit metabolic modulator LDCA synergistically potentiates doxorubicin to selectively combat cancer-associated hallmarks. RSC advances. 2017 ; 7(84): 53322-53333.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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