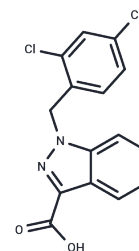


Lonidamine

Chemical Properties

CAS No. :	50264-69-2
Formula:	C ₁₅ H ₁₀ Cl ₂ N ₂ O ₂
Molecular Weight:	321.16
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	Lonidamine (Diclonidazole) is an indazole carboxylic acid derivative, principally inhibiting aerobic glycolytic activity, by its effect on mitochondrially-bound hexokinase (HK).
Targets(IC50)	Apoptosis,Hexokinase,Mitochondrial Metabolism,Parasite
In vitro	In mice carrying glioma tumors, Lonidamine (160 mg/kg) effectively reduced tumor growth.
In vivo	In both normal and tumor cells, Lonidamine reduces oxygen consumption while augmenting aerobic glycolysis in normal cells, thereby inhibiting aerobic glycolysis in tumor cells. The compound induces apoptosis at a concentration of 50 mg/ml in resistant cell lines, including the human breast cancer cell line MCF-7 ADR(r) and the LB9 multiform glioblastoma cell line, which exhibit resistance to doxorubicin and nitrosourea.

Solubility Information

Solubility	DMSO: 250 mg/mL (778.43 mM),Sonication is recommended. Ethanol: 1.6 mg/mL (4.98 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 (6.23 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	3.1137 mL	15.5686 mL	31.1371 mL
5 mM	0.6227 mL	3.1137 mL	6.2274 mL
10 mM	0.3114 mL	1.5569 mL	3.1137 mL
50 mM	0.0623 mL	0.3114 mL	0.6227 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

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