

Allopurinol

Chemical Properties

CAS No. :	315-30-0
Formula:	C ₅ H ₄ N ₄ O
Molecular Weight:	136.11
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Allopurinol (Zyloric) is a Xanthine Oxidase Inhibitor. The mechanism of action of allopurinol is as a Xanthine Oxidase Inhibitor.
Targets(IC50)	ROS,Xanthine Oxidase
In vitro	10 mM Allopurinol inhibited the activity of oxygen xanthine oxidase produced by hypoxia-reoxygenation injury. Allopurinol reduced intracellular Ca ²⁺ concentration by enhancing xanthine oxidase activity. Allopurinol reversed the increase in xanthine oxidase activity in neonatal rat hearts with ischemia-reperfusion injury.
In vivo	10 mM Allopurinol inhibited the activity of oxygen xanthine oxidase produced by hypoxia-reoxygenation injury. Allopurinol reduced intracellular Ca ²⁺ concentration by enhancing xanthine oxidase activity. Allopurinol reversed the increase in xanthine oxidase activity in neonatal rat hearts with ischemia-reperfusion injury.

Solubility Information

Solubility	Ethanol: 3 mg/mL (22.04 mM), Sonication is recommended. H ₂ O: Insoluble, DMSO: 16.4 mg/mL (120.49 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: 0.5 mg/mL (3.67 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	7.347 mL	36.735 mL	73.470 mL
5 mM	1.4694 mL	7.347 mL	14.694 mL
10 mM	0.7347 mL	3.6735 mL	7.347 mL
50 mM	0.1469 mL	0.7347 mL	1.4694 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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