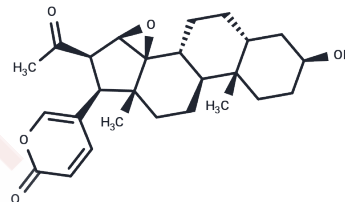


## Cinobufagin

## Chemical Properties

CAS No. :	470-37-1
Formula:	C <sub>26</sub> H <sub>34</sub> O <sub>6</sub>
Molecular Weight:	442.54
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	Cinobufagin (Cinobufagine) is a selective Na <sup>+</sup> /K <sup>+</sup> -ATPase inhibitor. The activity of Cinobufagin is same as ouabain.
Targets(IC50)	Apoptosis,ATPase,Autophagy

## Solubility Information

Solubility	DMSO: 132.5 mg/mL (299.41 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 (4.52 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	2.2597 mL	11.2984 mL	22.5968 mL
5 mM	0.4519 mL	2.2597 mL	4.5194 mL
10 mM	0.226 mL	1.1298 mL	2.2597 mL
50 mM	0.0452 mL	0.226 mL	0.4519 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

- Jiun-Yih Yeh, et al. Effects of bufalin and cinobufagin on the proliferation of androgen dependent and independent prostate cancer cells. *The Prostate* Volume 54, Issue 2, pages 112-124, 1 February 2003
- Yang W, Sun X, Liu S, et al. TLR8 agonist Motolimod-induced inflammatory death for treatment of acute myeloid leukemia. *Biomedicine & Pharmacotherapy*. 2023, 163: 114759.
- Yu CH, et al. Apoptotic signaling in bufalin- and cinobufagin-treated androgen-dependent and -independent human prostate cancer cells. *Cancer Science*, 2008, 99 (12): 2467-2476
- Chen S, Li M, Xue C, et al. Validation of Core Ingredients and Molecular Mechanism of Cinobufotalin Injection Against Liver Cancer. *Drug Design, Development and Therapy*. 2024, 18: 1321-1338.
- Peng Bei, et al. Progress in study on basic and clinical application in treating liver cancer by Cinobufagin Injection. *Drug Evaluation Research*, 22011-01
- Li X, Li X, Xiang C, et al. Starvation-induced phosphorylation activates gasdermin A to initiate pyroptosis. *Cell Reports*. 2024, 43(9).
- Zhang G, et al. Cinobufagin inhibits tumor growth by inducing intrinsic apoptosis through AKT signaling pathway in human nonsmall cell lung cancer cells. *Oncotarget*. 2016 Mar 3.

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