

## Cyclovalone

## Chemical Properties

CAS No. :	579-23-7
Formula:	C <sub>22</sub> H <sub>22</sub> O <sub>5</sub>
Molecular Weight:	366.413
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	Cyclovalone (Beveno) is an orally active synthetic curcumin derivative that inhibits cyclooxygenase and exhibits anti-inflammatory, antitumor, and antioxidant activities [1]. It also inhibits cell proliferation in both normal and malignant prostatic cells [2].
Targets(IC50)	COX
In vitro	Cyclovalone, at concentrations ranging from 0.2 to 10 µg/ml, effectively inhibited the proliferation of LNCaP and PC-3 cells over a period of 2 to 9 days by disrupting cell cycle transitions in a time and dose-dependent manner [2]. Cell cycle analysis conducted under the conditions of 2 µg/ml concentration and 72 hours of cultivation revealed a decrease in the number of G0/G1 phase cells and an increase in S and G2/M phase cells in LNCaP cells. A similar reduction in G0/G1 phase cells and an increase in S phase cells were observed in PC-3 cells.
In vivo	Cyclovalone (9.5-38 mg/kg, oral administration for 14 days) acts as a prostate-specific antagonist exhibiting no notable toxicity in BALB/c mice [2]. In this animal model, a dose-dependent reduction in the weight of the ventral prostate was observed. Another experiment utilizing PC-3 xenograft athymic BALB/c nude mice [2] involved administering a dose of 38 mg/kg orally for 20 days, which resulted in tumor growth inhibition under non-toxic conditions.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.7292 mL	13.6459 mL	27.2918 mL
5 mM	0.5458 mL	2.7292 mL	5.4584 mL
10 mM	0.2729 mL	1.3646 mL	2.7292 mL
50 mM	0.0546 mL	0.2729 mL	0.5458 mL

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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.

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