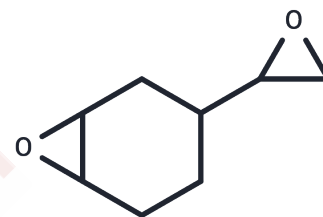


## 4-Vinylcyclohexene Dioxide

## Chemical Properties

CAS No. :	106-87-6
Formula:	C <sub>8</sub> H <sub>12</sub> O <sub>2</sub>
Molecular Weight:	140.18
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	4-Vinylcyclohexene Dioxide (VCD) is an industrial epoxy resin intermediate and metabolite that exhibits a highly selective destructive effect on oocytes in primordial and primary follicles; it is used as a key inducer for establishing animal models of premature ovarian failure and premenopause. 4-Vinylcyclohexene Dioxide exerts its ovarian toxicity by activating caspase-dependent apoptotic pathways and can induce apoptosis in ovarian granulosa cells by upregulating reactive oxygen species and activating the PI3K/Akt/mTOR signaling pathway. It is used in reproductive toxicology and endocrine regulation research.
Targets(IC50)	Apoptosis,Others,Akt,mTOR,PI3K,ROS

## Solubility Information

Solubility	DMSO: 40 mg/mL (285.35 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: 5 mg/mL (35.67 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

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	1mg	5mg	10mg
1 mM	7.1337 mL	35.6684 mL	71.3369 mL
5 mM	1.4267 mL	7.1337 mL	14.2674 mL
10 mM	0.7134 mL	3.5668 mL	7.1337 mL
50 mM	0.1427 mL	0.7134 mL	1.4267 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481