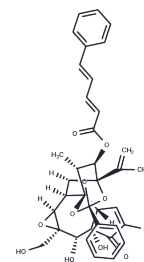


## Mezerein

## Chemical Properties

CAS No. :	34807-41-5
Formula:	C <sub>38</sub> H <sub>38</sub> O <sub>10</sub>
Molecular Weight:	654.70
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	Mezerein is a chemical compound with antileukemic properties and acts as a PKC activator. It effectively inhibits the growth of yeast expressing PKC alpha (IC <sub>50</sub> = 1190 nM), PKC beta1 (IC <sub>50</sub> = 908 nM), and PKC delta (IC <sub>50</sub> = 141 nM). However, it does not inhibit the growth of yeast expressing PKC.
Targets(IC <sub>50</sub> )	Others
In vitro	Mezerein, an antileukemic compound extracted from <i>Daphne mezereum</i> L, has demonstrated significant efficacy in inhibiting the proliferation of the tumorigenic murine macrophage cell line M5076, as shown in a Cell Proliferation Assay. When M5076 cells were treated with a concentration of 50 ng/mL of Mezerein for 72 hours, cellular proliferation was impeded by more than 90%.
In vivo	Mezerein demonstrates significant antileukemic effects, specifically inhibiting P-388 lymphocytic leukemia and showing considerable activity against both P-388 and L-1210 leukemias in mice at a dosage of 50 µg/kg[2].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.5274 mL	7.6371 mL	15.2742 mL
5 mM	0.3055 mL	1.5274 mL	3.0548 mL
10 mM	0.1527 mL	0.7637 mL	1.5274 mL
50 mM	0.0305 mL	0.1527 mL	0.3055 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

L Saraiva, et al. Differential activation by daphnetoxin and mezerein of PKC-isotypes alpha, beta I, delta and zeta. *Planta Med.* 2001 Dec;67(9):787-90.

S M Kupchan, et al. Mezerein: antileukemic principle isolated from *Daphne mezereum* L. *Science.* 1975 Feb 21;187(4177):652-3.

N T Goode, et al. Protein kinase C-induced stimulation or inhibition of cellular proliferation in a murine macrophage tumor cell line. *Cancer Res.* 1990 Mar 15;50(6):1828-33.

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