Data Sheet (Cat.No.T4900)

TargetMol®
YOUR TARGET MOLECULES

(±)-Methyl Jasmonate

Chemical Properties

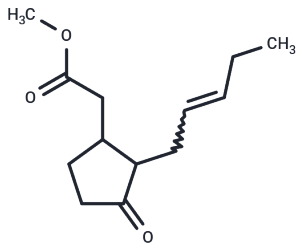
CAS No. : 39924-52-2

Formula: C13H20O3

Molecular Weight: 224.3

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Methyl 2-(3-oxo-2-(pent-2-en-1-yl)cyclopentyl)acetate ((±)-Jasmonic Acid methyl ester)induces the synthesis of proteinase inhibitors in plant leaves. In cancer cells, it suppresses proliferation and induces apoptosis. More specifically, methyl jasmonate inhibits hexokinase that is bound to mitochondria. As hexokinase is overexpressed in cancer cells and contributes to cancer cell growth and survival, methyl jasmonate's disruption of mitochondrial hexokinase activity selectively targets, and kills, cancer cells. Methyl 2-(3-oxo-2-(pent-2-en-1-yl)cyclopentyl)acetate derivatives also have potential as anti-inflammatory agents. Methyl 2-(3-oxo-2-(pent-2-en-1-yl)cyclopentyl)acetate has been primarily detected in urine.
Targets(IC50)	Others,Endogenous Metabolite

Solubility Information

Solubility	H2O: Insoluble, DMSO: 55 mg/mL (245.21 mM), Ethanol: 30 mg/mL, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4583 mL	22.2916 mL	44.5831 mL
5 mM	0.8917 mL	4.4583 mL	8.9166 mL
10 mM	0.4458 mL	2.2292 mL	4.4583 mL
50 mM	0.0892 mL	0.4458 mL	0.8917 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.

Reference

Farmer, E.E., and Ryan, C.A. Interplant communication: Airborne methyl jasmonate induces synthesis of proteinase inhibitors in plant leaves. Proc Natl Acad Sci U S A. 1990 Oct;87(19):7713-6.
Fingrut, O., and

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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