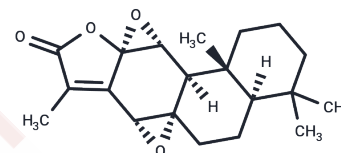


## Jolkinolide B

## Chemical Properties

CAS No. :	37905-08-1
Formula:	C <sub>20</sub> H <sub>26</sub> O <sub>4</sub>
Molecular Weight:	330.42
Storage:	Keep away from direct sunlight 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	Jolkinolide B is a bioactive diterpene isolated from the roots of <i>Euphorbia fischeriana</i> Steud. Jolkinolide B induces apoptosis in cancer cells. Jolkinolide B can be used for studies on preventing and treating osteolysis.
Targets(IC50)	Apoptosis, ERK, Bcl-2 Family, NF-κB, Akt, Caspase, STAT, IL Receptor, JAK, JNK, mTOR, p38 MAPK, PI3K, TNF
In vitro	Jolkinolide B has potent anti-inflammatory, and antitumor activities. Jolkinolide B is able to enhance apoptosis of human leukemic HL-60 and THP-1 cells, at least in part, through downregulation of JAK2/STAT3 and bcl-2, and upregulation of Bax and cytosolic cytochrome c. Jolkinolide B inhibited RANKL-induced osteoclast differentiation from bone marrow macrophages (BMMs) without cytotoxicity. Furthermore, the expression of osteoclastic marker genes, such as tartrate-resistant acid phosphatase (TRAP), cathepsin K (CtsK), and calcitonin receptor (CTR), was significantly inhibited. Jolkinolide B inhibited RANKL-induced activation of NF-κB by suppressing RANKL-mediated IκBα degradation. Moreover, Jolkinolide B inhibited RANKL-induced phosphorylation of mitogen-activated protein kinases (p38, JNK, and ERK)[1].

## Solubility Information

Solubility	DMSO: 3.31 mg/mL (10.02 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.0265 mL	15.1323 mL	30.2645 mL
5 mM	0.6053 mL	3.0265 mL	6.0529 mL
10 mM	0.3026 mL	1.5132 mL	3.0265 mL
50 mM	0.0605 mL	0.3026 mL	0.6053 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.

### Reference

Ma X, et al. Jolkinolide B inhibits RANKL-induced osteoclastogenesis by suppressing the activation NF- $\kappa$ B and MAPK signaling pathways. *Biochem Biophys Res Commun*. 2014 Mar 7;445(2):282-8.

Wang, J., Zhou, Y., Bai, X. et al. Jolkinolide B from *Euphorbia fischeriana* Steud induces apoptosis in human leukemic U937 cells through PI3K/Akt and XIAP pathways. *Mol Cells* 32, 451-457 (2011).

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