

Neriifolin

Chemical Properties

CAS No. : 466-07-9

Formula: C₃₀H₄₆O₈

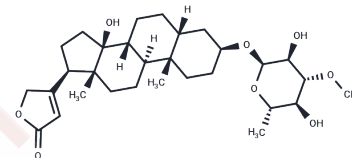
Molecular Weight: 534.68

Storage:

Keep away from direct sunlight, Store at low temperature, Keep away from moisture

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	Neriifolin (17β-Neriifolin), a cardiac glycoside extracted from the unripe fruit of <i>Cerbera manghas</i> , is a Na ⁺ K ⁺ -ATPase inhibitor with anticancer activity that inhibits cell proliferation by suppressing HOXA9-dependent gene expression and inducing apoptosis in the human acute myeloid cell line, THP-1. Neriifolin induces cell cycle arrest and apoptosis in human hepatocellular carcinoma HepG2 cells and can be used in prostate cancer research.
Targets(IC50)	Apoptosis,ATPase,Autophagy,ATG
In vitro	Treatment of Neriifolin at a concentration of 0.1 μg/mL for 48 hours was able to cause apoptosis of HepG2 cells. In addition, Neriifolin significantly reduced the viability of HepG2 cells after 72 hours of treatment at concentrations ranging from 0 to 8 μg/mL. The compound also caused cell cycle arrest in the S and G ₂ /M phases, further promoting apoptosis in HepG2 cells. When HepG2 cells were stimulated by Neriifolin, caspase-3, caspase-8, and caspase-9 were activated, while the expression of Fas and FasL proteins was upregulated. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (149.62 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: 3.3 mg/mL (6.17 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

	1mg	5mg	10mg
1 mM	1.8703 mL	9.3514 mL	18.7028 mL
5 mM	0.3741 mL	1.8703 mL	3.7406 mL
10 mM	0.187 mL	0.9351 mL	1.8703 mL
50 mM	0.0374 mL	0.187 mL	0.3741 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

Keller CW, et al. ATG-dependent phagocytosis in dendritic cells drives myelin-specific CD4+ T cell pathogenicity during CNS inflammation. *Proc Natl Acad Sci U S A*. 2017 Dec 26;114(52):E11228-E11237.

Zhao Q, et al. Neriifolin from seeds of *Cerbera manghas* L. induces cell cycle arrest and apoptosis in human hepatocellular carcinoma HepG2 cells. *Fitoterapia*. 2011 Jul;82(5):735-41.

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