

Product Name: Gedunin

Catalog No.: 3387

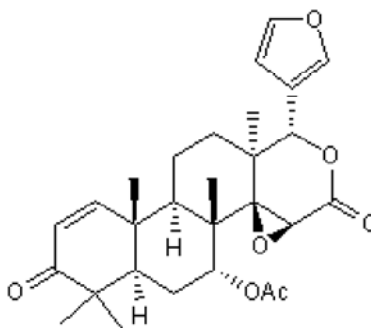
Batch No.: 4

CAS Number: 2753-30-2

IUPAC Name: (1*S*,3*aS*,4*aR*,4*bS*,5*R*,6*aR*,10*aR*,10*bR*,12*aS*)-5-(Acetyloxy)-1-(3-furanyl)-1,5,6,6*a*,7,10*a*,10*b*,11,12,12*a*,decahydro-4*b*,7,7,10*a*,12*a*,-pentamethyloxireno[*c*]phenanthro[1,2-*d*]pyran-3,8(3*aH*,4*bH*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₈ H ₃₄ O ₇
Batch Molecular Weight:	482.57
Physical Appearance:	White solid
Solubility:	DMSO to 100 mM ethanol to 10 mM with gentle warming
Storage:	Store at +4°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

TLC:	R _f = 0.5 (5:3:2 petrol:DCM:EtOAc)
HPLC:	Shows >98.9% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
Optical Rotation:	[α] _D = +67.1 (Concentration = 1, Solvent = Methanol)
Microanalysis:	
	Carbon Hydrogen Nitrogen
	Theoretical 69.69 7.1
	Found 69.75 7.15 0.1

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Naturally occurring Hsp90 inhibitor. Induces Hsp90-dependent client protein degradation and displays antiproliferative activity in vitro (IC₅₀ values are 3.22, 8.84 and 16.8 μM in SKBr3, MCF-7 and CaCo-2 cancer cell lines respectively). Decreases ovarian cancer cell proliferation in vitro and may enhance cisplatin-induced reduction in proliferation (CAT.No 3387). Also exhibits antimalarial activity against *P. falciparum* (IC₅₀ values are 0.14 and 3.1 μM in parasite development and [³H]-hypoxanthine uptake assays respectively).

Physical and Chemical Properties:

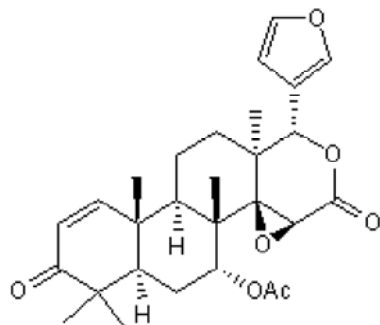
Batch Molecular Formula: C₂₈H₃₄O₇

Batch Molecular Weight: 482.57

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Kamath et al (2009) Gedunin, a novel natural substance, inhibits ovarian cancer cell proliferation. *Int J Gynecol Cancer*. **19** 1564. PMID: 19955938.

Brandt et al (2008) Gedunin, a novel Hsp90 inhibitor: semisynthesis of derivatives and preliminary structure-activity relationships. *J.Med.Chem.* **51** 6495. PMID: 18816111.

Lee et al (2008) Antimalarial activity of anthothocol derived from *Khaya anthotheca* (Meliaceae). *Phytomedicine* **15** 533. PMID: 17913482.

Uddin et al (2007) Gedunin, a limonoid from *Xylocarpus granatum*, inhibits the growth of CaCo-2 colon cancer cell line *in vitro*. *Phytother.Res.* **21** 757. PMID: 17450509.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 10 mM with gentle warming

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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