

Product Name: Narciclasine

Catalog No.: 3715

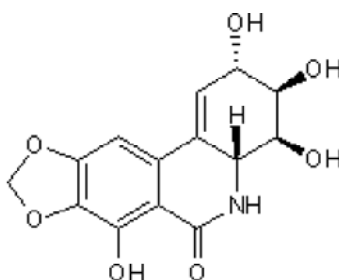
Batch No.: 3

CAS Number: 29477-83-6

IUPAC Name: (2*S*,3*R*,4*S*,4*aR*)-3,4,4*a*,5-Tetrahydro-2,3,4,7-tetrahydroxy-(1,3)dioxolo(4,5-*j*)phenanthridin-6(2*H*)-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₄H₁₃NO₇
Batch Molecular Weight: 307.26
Physical Appearance: Off White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (Chloroform:Methanol [9:1])
HPLC: Shows 99.0% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +119.2 (Concentration = 0.05, Solvent = Methanol)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.73	4.26	4.56
Found	54.72	4.28	4.58

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

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Description:

Exhibits antiproliferative and pro-apoptotic effects in carcinoma cells and displays cytotoxic activity against a panel of 60 cancer cell lines (mean IC₅₀ = 47 nM). Activity decreases rate of cell division and increases mitosis duration in vitro. Also modulates the Rho/ROCK/LIM kinase/cofilin pathway; stimulates RhoA activation and induces actin polymerization.

Physical and Chemical Properties:

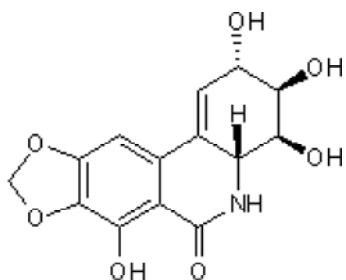
Batch Molecular Formula: C₁₄H₁₃NO₇

Batch Molecular Weight: 307.26

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

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.

References:

Ingrassia et al (2009) Structure-activity relationship analysis of novel derivatives of narciclasine (an *Amaryllidaceae* isocarbostryril derivative) as potential anticancer agents. *J.Med.Chem.* **52** 1100. PMID: 19199649.

Lefranc et al (2009) Narciclasine, a plant growth modulator, activates Rho and stress fibers in glioblastoma cells. *Mol.Cancer Ther.* **8** 1739. PMID: 19531573.

Dumont et al (2007) The Amaryllidaceae isocarbostryril narciclasine induces apoptosis by activation of the death receptor and/or mitochondrial pathways in cancer cells but not in normal fibroblasts. *Neoplasia* **9** 766. PMID: 17898872.

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