

Product Name: Narciclasine

Catalog No.: 3715

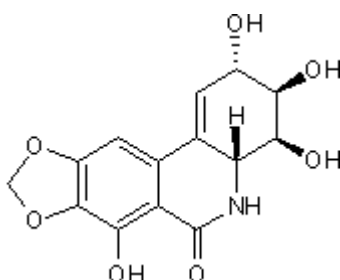
Batch No.: 3

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 99.4% 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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IUPAC Name: (2S,3R,4S,4aR)-3,4,4a,5-Tetrahydro-2,3,4,7-tetrahydroxy-(1,3)dioxolo(4,5-*j*)phenanthridin-6(2*H*)-one

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:

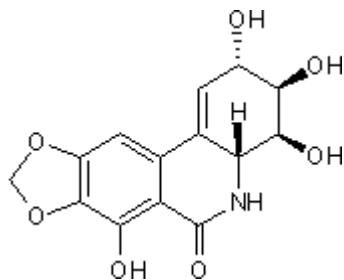
Batch Molecular Formula: C₁₄H₁₃NO₇

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

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:

Dumont et al (2007) The Amaryllidaceae isocarbostryl 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.

Ingrassia et al (2009) Structure-activity relationship analysis of novel derivatives of narciclasine (an *Amaryllidaceae* isocarbostryl 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.

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Tocris Bioscience is an R&D Systems company
 USA & CANADA Tel: (800) 343-7475 EUROPE Tel: +44 (0)1235 529449 CHINA Tel: +86 (21) 52380373
www.RnDSystems.com

