# Certificate of Analysis



**Product Name:** **Colchicine** **Catalog No.: 1364** **Batch No.: 5**

CAS Number: 64-86-8 EC Number: 200-598-5

IUPAC Name: (*S*)-*N*-(5,6,7,9-Tetrahydro-1,2,3,10-tetramethoxy-9-oxobenzo[*a*]heptalen-7-yl)acetamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{22}H_{25}NO_6.½H_2O$

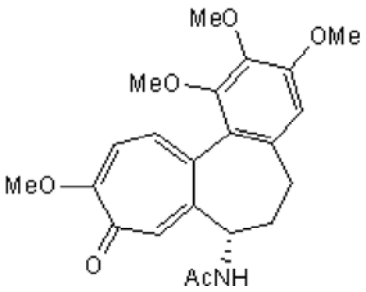
**Batch Molecular Weight:** 408.45

**Physical Appearance:** White solid

**Solubility:** water to 100 mM
DMSO to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**HPLC:** Shows 99.2% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Optical Rotation:** $[\alpha]_D$ = -113.1 (Concentration = 0.9, Solvent = Chloroform)

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 64.69 | 6.42 | 3.43 |
| Found | 64.82 | 6.52 | 3.35 |

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**Description:**

Plant-derived alkaloid that binds to tubulin and depolymerizes microtubules. Identified as a candidate for repurposing for COVID-19. Inhibits NLRP3 inflammasomes. Also decreases TNF-α receptor expression and reduces cytokine levels in macrophages. Anti-inflammatory.

**Physical and Chemical Properties:**

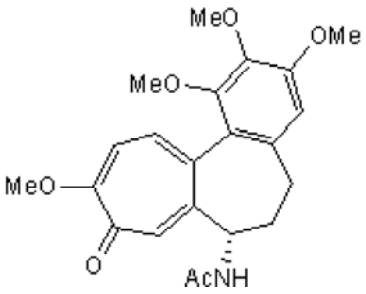
Batch Molecular Formula: $C_{22}H_{25}NO_6.½H_2O$

Batch Molecular Weight: 408.45

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**




**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 mM
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:**

**Morselli** *et al* (2020) Network medicine framework for identifying drug repurposing opportunities for COVID-19. arXiv - Paper not yet peer reviewed. PMID: 32550253.

**Ribeiro** *et al* (2020) The therapeutic potential of colch in the complications of COVID19. Could the immunometabolic properties of an old and cheap drug help? Metabol.Open ***7*** 100045. PMID: 32808940.

**Martinez** *et al* (2018) The NLRP3 inflammasome and the emerging role of colch to inhibit atherosclerosis-associated inflammation. Atherosclerosis ***269*** 262. PMID: 29352570.

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