

Colchicine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Colchicine

Catalog No.: CFN99514

Cas No.: 64-86-8

Purity: > 98%

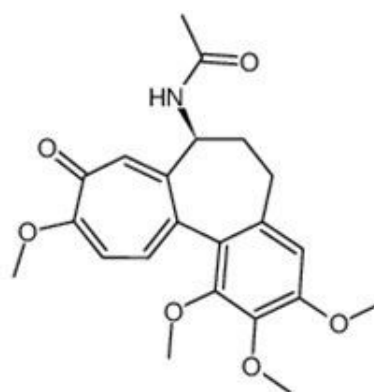
M.F: C₂₂H₂₅NO₆

M.W: 399.44

Physical Description: Powder

Synonyms:

N-[(7S)-1,2,3,10-tetramethoxy-9-oxo-6,7-dihydro-5H-benzo[a]heptalen-7-yl]acetamide.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The bulb of *Colchicum autumnale* L.

[Biological Activity or Inhibitors]

Colchicine prevents amyloidosis in our high-risk population and that it can prevent additional deterioration of renal function in patients with amyloidosis who have proteinuria but not the nephrotic syndrome.^[1]

Colchicine binds at a location where it prevents curved tubulin from adopting a straight structure, which inhibits assembly, and microtubules are cytoskeletal polymers of tubulin involved in many cellular functions.^[2]

Colchicine has anti-mitotic activity, it interacts with tubulin and perturbs the assembly dynamics of microtubules; though its use has been limited because of its toxicity, colchicine can still be used as a lead compound for the generation of potent anti-cancer drugs.^[3]

Colchicine can treat familial mediterranean fever.^[4]

Colchicine resistant (CHR) lines of stable phenotype have been isolated from cultured Chinese hamster (CHO) cells, the non-ionic detergent Tween 80 potentiated the cytotoxic action of colchicine on mutant cells as well as its rate of uptake into whole cells.^[5]

Colchicine may exert its prophylactic effects on cytokine-provoked inflammation by diminishing the qualitative expression of E-selectin on endothelium, and its therapeutic effects by diminishing the quantitative expression of L-selectin on neutrophils.^[6]

[Solvent]

Chloroform, Dichloromethane, DMSO, Acetone, etc.

[HPLC Method]^[7]

Mobile phase: Acetonitrile-10 mM NaH₂PO₄ (pH 3.0) =35:65 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 245 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Zemer D, Pras M, Sohar E, *et al.* *New Engl. J. Med.*, 1986, 314(16):1001-5.
- [2] Ravelli R B, Gigant B, Curmi P A. *Nature*, 2004, 428(6979):198-202.
- [3] Bhattacharyya B, Panda D, Gupta S, *et al.* *Med. Res. Rev.*, 2008, 39(12):155-83.
- [4] Dinarello C A, Wolff S M, Goldfinger S E, *et al.* *New Engl. J. Med.*, 1974, 291(18):934-7.
- [5] Ling V, † L H T. *J. Cell Physiol.*, 1974, 83(1):103-16.
- [6] Cronstein B N. *J. Clin. Invest.*, 1995, 96(2):994-1002.
- [7] Toruńczyk-Ruiz S. *Revista Espanola De Cirugia Oral Y Maxilofacial*, 2013, 34(2):A151.

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