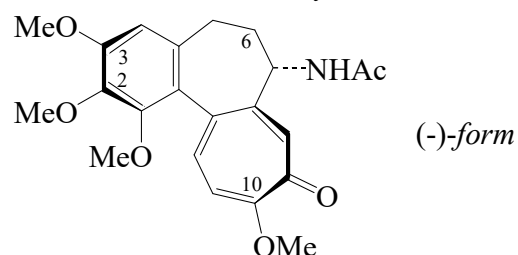




>>Entry Name: Colchicine, JAN, USAN

Synonym(s): Colchiceine methyl ether. Artrichine. Colchisol. Colsaloid. NSC 757. Many other names



Molecular Formula: C₂₂H₂₅NO₆

Molecular Weight: 399.443

Accurate Mass: 399.168189

Percentage Composition: C 66.15%; H 6.31%; N 3.51%; O 24.03%

Use/Importance: Functions by binding to tubulin and arresting cell division at metaphase. Also inhibits many cell transport systems. Antimitotic agent used to induce polyploidy in plant breeding and for studying cell division. Toxicity has precluded exploitation of these props. for antineoplastic use. Potential HIV inhibitor. Antiinflammatory agent. Used for relief of pain in acute gout

Calculated Log P Data: Log P -0.21 (uncertain value) (calc)

>>Variant: (+)-form

CAS Registry Number: 75520-89-7

Molecular Formula: C₂₂H₂₅NO₆

Molecular Weight: 399.443

Accurate Mass: 399.168189

Percentage Composition: C 66.15%; H 6.31%; N 3.51%; O 24.03%

Source/Synthesis: Synthetic

Physical Description: Cryst. (H₂O)

Melting Point: Mp 139-141°

Optical Rotation: [α]_D +131 (c, 0.87 in CHCl₃)

>>Variant: (-)-form

CAS Registry Number: 64-86-8

Molecular Formula: C₂₂H₂₅NO₆

Molecular Weight: 399.443

Accurate Mass: 399.168189

Percentage Composition: C 66.15%; H 6.31%; N 3.51%; O 24.03%

Biological Source: Chief alkaloid from *Colchicum autumnale*, many other *Colchicum* spp., several *Merendera* spp., *Gloriosa superba* and others (Liliaceae)

Melting Point: Mp 155-157°

Optical Rotation: [α]_D -121 (CHCl₃)

Solubility: BERDY SOL: Sol. MeOH, C₆H₆, H₂O; fairly sol. Et₂O; poorly sol. hexane

Calculated Log P Data: Log P -0.21 (uncertain value) (calc)

UV: [neutral] λ_{max} 243 (ε 18600); 350 (ε 16700) (EtOH) (Berdy)

Other Data: Pharmacol. active isomer

Hazard & Toxicity: Gastrointestinal effects when used therapeutically. Other adverse effects reported incl. a lethal dose of 7 mg in humans. Severe eye irritant. *Colchicum* spp. bulbs are freq. cause of accidental poisoning. Exp. reprod. and teratogenic effects. LD₅₀ (mus, orl) 6 mg/kg. LD₅₀ (mus, ipr) 2 mg/kg

Aldrich: 85577-4

Fluka: 27650

Sigma: C9754

>>Derivative: Tetrachloroaurate

Melting Point: Mp 209°

>>Derivative: N-Me

see Demecolcine, [CFQ97-M](#)

>>Derivative: N-De-Ac

see N-Deacetylcolchicine, [GNW49-Z](#)

>>Derivative: O²-De-Me