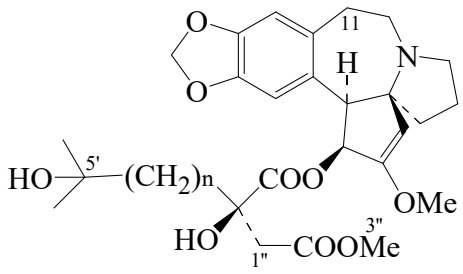
>>**Entry Name: Harringtonine**
Synonym(s): Cephalotaxine 4-methyl 2-hydroxy-2-(3-hydroxy-3-methylbutyl)butanedioate(ester), 9CI



n = 2

CAS Registry Number: 26833-85-2

Molecular Formula: $C_{28}H_{37}NO_9$
Molecular Weight: 531.602
Accurate Mass: 531.246834
Percentage Composition: C 63.26%; H 7.02%; N 2.63%; O 27.09%
Biological Source: Alkaloid from *Cephalotaxus harringtonia* var. *harringtonia, Cephalotaxus fortunei, Cephalotaxus hainanensis, Cephalotaxus sinensis* and *Cephalotaxus oliveri* (Cephalotaxaceae)
Use/Importance: Protein and DNA biosynthesis inhibitor. Shows antineoplastic activity, especially against murine lymphocytic leukaemias. More active than Vincristine against mouse leukaemias and melanomas. Has been used clinically against acute myelocytic leukaemia
Melting Point: Mp 73-75°
Optical Rotation: $[\alpha]_D$ –104.6 (c, 1.0 in $CHCl_3$)
Calculated Log P Data: Log P 0.52 (uncertain value) (calc)
UV: [neutral] λ_{max} 261 (ε 724); 290 (ε 4570) (EtOH) (Derep) [neutral] λ_{max} 290 () (EtOH) (Berdy)
Hazard & Toxicity: LD_{50} (mus, ipr) 4.17 mg/kg. Exp. adverse systemic effects (G.I. tract, heart, haematopoietic organs)

Sigma: H0510

>>**Derivative:** Parent acid
Synonym(s): 3''-Des-*O*-methylharringtonine. 5'-Des-*O*-methylharringtonine

Molecular Formula: $C_{27}H_{35}NO_9$
Molecular Weight: 517.575
Accurate Mass: 517.231184
Percentage Composition: C 62.66%; H 6.82%; N 2.71%; O 27.82%
Biological Source: Alkaloid from leaves and stems of *Cephalotaxus harringtonia* var. *drupacea*
Physical Description: Amorph. solid
Optical Rotation: $[\alpha]_D$ –113 (c, 0.43 in DMSO)
UV: [neutral] λ_{max} 289 (ε 3630) (MeOH) (Berdy)

>>**Derivative:** 5'-Deoxy
Synonym(s): Deoxyharringtonine

CAS Registry Number: 36804-95-2

Molecular Formula: $C_{28}H_{37}NO_8$
Molecular Weight: 515.602
Accurate Mass: 515.251919
Percentage Composition: C 65.23%; H 7.23%; N 2.72%; O 24.82%
Biological Source: Alkaloid from *Cephalotaxus harringtonia* var. *harringtonia* and *Cephalotaxus hainanensis* (Cephalotaxaceae)
Use/Importance: Shows antineoplastic props.
Physical Description: Noncryst.
Optical Rotation: $[\alpha]_D$ –125.4 (c, 1.76 in $CHCl_3$)
Calculated Log P Data: Log P 2.73 (uncertain value) (calc)
UV: [neutral] λ_{max} 273 (ε 12590) (EtOH) (Derep) [neutral] λ_{max} 290 (ε 14570) (EtOH) (Berdy)