



Formula: C₂₉H₃₉NO₉

MW: 545.63

CAS: 26833-87-4

TNP NUMBER: TNP00152

MDL NUMBER: MFCD05618221

IUPAC:

(2S,3S,6S)-4-methoxy-16,18-dioxa-10-azapentacyclo[11.7.0.0.0.0]icosa-1(20),4,13,15(19)-tetraen-3-yl methyl (2R)-2-hydroxy-2-(4-hydroxy-4-methylpentyl)butane-1,4-dioate

Smiles:

C12CC3C(CC2CCN2[C]4([C@H]1[C@@H](C(=C4)OC)OC(=O)[C@@](CC(OC)=O)(O)CCCC(O)(C)C)CCC2)OCO3

REFERENCE: Zhou, D.C., et al., Homoharringtonine: an effective new natural product in cancer chemotherapy. Bull. Cancer 82, 987-995, (1995) abstract Tujebajeva, R.M, et al., Selective inhibition of the polypeptide chain elongation in eukaryotic cells. Biochim. Biophys. Acta 1129, 177-182, (1992) abstract

SOURCE: alkaloid from the evergreen tree, *Cephalotaxus hainanensis*

ACCEPTORS: 9

DONORS: 2

ROTATION BONDS: 11

N+O: 10

Chiral Centers: 4

LogP: 3.63

LogS: -5.39

LIPINSKI: 3

Synonyms:

4-methyl-cephalotaxin-2-hydroxy-2-(4-hydroxy-4-methylpentyl)butanedioate(e;cephalotaxine,4-methyl(2r)-2-hydroxy-2-(4-hydroxy-4-methylpentyl)butanedioa;HOMO HARRINGTONIN;HOMO HARRINGTONINE;HHT;cephalotaxine 4-methyl

2-hydroxy-2-(4-hydroxy-4-methylpentyl)butanedioate;CEPHALOTAXINE, 4-METHYL-2-HYDROXY-2-[4-HYDROXY-4-METHYLPENTYL] BUTANEDIOATE ESTER;CEPHALOTAXINE 4-METHYL (2R)-2-HYDROXY-2-(4-HYDROXY-4-METHYLPENTYL)BUTANEDIOATE

CAS:26833-87-4

MF:C29H39NO9

MW:545.62

EINECS:

Product Categories:Alkaloids;Chiral Reagents;Heterocycles;Intermediates & Fine Chemicals;Pharmaceuticals;Cell Cycle RegulatorsCancer Research;DNA-RNA Transcription Regulators;Antitumor Agents;Apoptosis and Cell Cycle;Cell Cycle;Peptide Synthesis/Antibiotics Homoharringtonine

Chemical Properties: mp 144-146 C storage temp. 2-8C T+,Xi Risk Statements 26/27/28-36/37/38 Safety Statements 36/37/39-45-27-26 RIDADR UN 1544 6.1/PG 2 WGK Germany 3 RTECS FK0260000 HazardClass 6.1(a) PackingGroup II Homoharringtonine

Usage And Synthesis:

Chemical Properties: Off-white Cryst UsageHomoharringtonine (HHT) combined with some botanical drugs could induce cancer cells to resemble normal cells. HHT was prepared by a semi-synthetic method from Cephalotaxine, a major alkaloid of Cephalotaxus species through the formation of a-ketoes Biological ActivityInhibitor of protein synthesis. Blocks elongation

phase of translation by binding to the 60-S ribosome subunit. Antileukemic. Homoharringtonine

