



>>Derivative: 4'-Epimer

Synonym(s): Epirubicin, BAN, INN. Ellence. NSC 256942. IMI 28

CAS Registry Number: 56420-45-2

Molecular Formula: $C_{26}H_{27}NO_{10}$

Molecular Weight: 513.5

Accurate Mass: 513.163499

Percentage Composition: C 60.82%; H 5.30%; N 2.73%; O 31.16%

Biological Use/Importance: Antineoplastic antibiotic. Used in the treatment of breast cancer

Development Status: Approved 1999

Calculated Log P Data: Log P -1.45 (uncertain value) (calc)

Other Data: Apparently incorrectly described as β -anomer in CAS

Hazard & Toxicity: Adverse effects similar to Adriamycin when used therapeutically. LD₅₀ (rat, ivn) 14.3 mg/kg

>>Derivative: 4'-Epimer; hydrochloride

Synonym(s): Epirubicin hydrochloride, USAN. Farmorubicin. Pharmorubicin

CAS Registry Number: 56390-09-1

Physical Description: Red cryst.

Development Status: Launched 1984

Melting Point: Mp 185° (dec.)

Optical Rotation: $[\alpha]_D +274$ (c, 0.01 in MeOH)

>>Derivative: 4'-Deoxy

Synonym(s): Esorubicin, INN. 4'-Deoxydoxorubicin. IMI 58. NSC 267469

CAS Registry Number: 63521-85-7

Molecular Formula: $C_{27}H_{29}NO_{10}$

Molecular Weight: 527.527

Accurate Mass: 527.179149

Percentage Composition: C 61.47%; H 5.54%; N 2.66%; O 30.33%

Biological Use/Importance: Antineoplastic agent

Melting Point: Mp 163° (as hydrochloride)

Optical Rotation: $[\alpha]_D^{20} +320$ (c, 0.05 in MeOH)

Calculated Log P Data: Log P -0.99 (uncertain value) (calc)