



**Biological Source:** Isol. from *Micromonospora* sp. nov.

**Biological Use/Importance:** Antibacterial and cytotoxic agent

**Melting Point:** Mp 163-164 dec.° (as hydrochloride)

**Optical Rotation:**  $[\alpha]_D^{23} +107$  (c, 0.2 in MeOH)

**Solubility:** BERDY SOL: Sol. MeOH, AcOH, acids, Py, CHCl<sub>3</sub>; poorly sol. Et<sub>2</sub>O, hexane, H<sub>2</sub>O

**UV:** [neutral]  $\lambda_{\max}$  228 (E1%/1cm 640); 260 (E1%/1cm 410); 418 (E1%/1cm 179) (MeOH) (Berdy) [neutral]  $\lambda_{\max}$  235 (E1%/1cm 605); 262 (E1%/1cm 400); 426 (E1%/1cm 160) (pH 7 buffer) (Berdy) [base]  $\lambda_{\max}$  510 (E1%/1cm 118) (NaOH) (Berdy)

>>**Derivative:** 11-Deoxy, 13-deoxo

**Synonym(s):** 11-Deoxy-13-deoxodaunorubicin

**CAS Registry Number:** 71800-92-5

**Extra CAS Registry Numbers(s):** 73890-45-6

**Molecular Formula:** C<sub>27</sub>H<sub>31</sub>NO<sub>8</sub>

**Molecular Weight:** 497.544

**Accurate Mass:** 497.204969

**Percentage Composition:** C 65.18%; H 6.28%; N 2.82%; O 25.73%

**Biological Source:** Isol. from *Micromonospora* sp. nov.

**Biological Use/Importance:** Antibacterial and cytotoxic agent

**Melting Point:** Mp 140-150 dec.° (as hydrochloride)

**Optical Rotation:**  $[\alpha]_D^{23} +122$  (c, 0.2 in MeOH)

**Solubility:** BERDY SOL: Sol. MeOH, AcOH, Py, acids, CHCl<sub>3</sub>; poorly sol. Et<sub>2</sub>O, hexane, H<sub>2</sub>O

**UV:** [neutral]  $\lambda_{\max}$  228 (E1%/1cm 610); 260 (E1%/1cm 395); 418 (E1%/1cm 171) (MeOH) (Berdy) [neutral]  $\lambda_{\max}$  235 (E1%/1cm 550); 262 (E1%/1cm 400); 426 (E1%/1cm 140) (pH 7 buffer) (Berdy)

>>**Derivative:** 8-Deoxy, 7,8-didehydro

**Synonym(s):** 9,10-Anhydrodaunomycin. 9,10-Anhydrodaunorubicin. D 788-13. Antibiotic D 788-13

**Molecular Formula:** C<sub>27</sub>H<sub>27</sub>NO<sub>9</sub>

**Molecular Weight:** 509.512

**Accurate Mass:** 509.168584

**Percentage Composition:** C 63.65%; H 5.34%; N 2.75%; O 28.26%

**Biological Source:** Prod. by *Streptomyces* sp. D788

**Physical Description:** Red-brown powder

**Melting Point:** Mp 155-160 dec.°

**Optical Rotation:**  $[\alpha]_D +258$  (c, 0.01 in CHCl<sub>3</sub>)

**Solubility:** BERDY SOL: Sol. MeOH, CHCl<sub>3</sub>; poorly sol. H<sub>2</sub>O, hexane

**UV:** [neutral]  $\lambda_{\max}$  234 (E1%/1cm 813); 254 (E1%/1cm 461); 293 (E1%/1cm 160); 492 (E1%/1cm 293) (MeOH) (Berdy)

>>**Derivative:** Aglycone

**Synonym(s):** 8-Acetyl-7,8,9,10-tetrahydro-6,8,10,11-tetrahydroxy-1-methoxy-5,12-naphthacenedione, 9Cl, 8Cl. Daunomycinone. Daunorubicinone. Leukaemomycinone

**CAS Registry Number:** 21794-55-8

**Molecular Formula:** C<sub>21</sub>H<sub>18</sub>O<sub>8</sub>

**Molecular Weight:** 398.368

**Accurate Mass:** 398.10017

**Percentage Composition:** C 63.32%; H 4.55%; O 32.13%

**Melting Point:** Mp 213-214°

**Optical Rotation:**  $[\alpha]_D^{20} +193$  (c, 0.1 in dioxan)

>>**Derivative:** Aglycone, tetra-Ac

**CAS Registry Number:** 32384-96-6

**Molecular Formula:** C<sub>29</sub>H<sub>26</sub>O<sub>12</sub>

**Molecular Weight:** 566.517

**Accurate Mass:** 566.14243

**Percentage Composition:** C 61.48%; H 4.63%; O 33.89%

**Melting Point:** Mp 225°