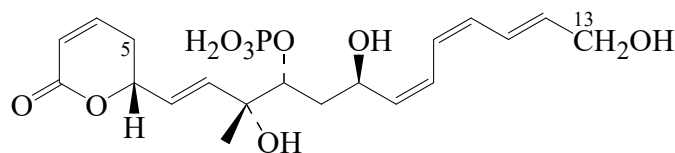




>>Entry Name: Fostriecin, INN

Synonym(s): Antibiotic CI 920. CI 920. PD 110161. Antibiotic PD 110161. CL 1565A. Antibiotic CL 1565A. Phosphotrienin. NSC 339638



Absolute Configuration

CAS Registry Number: 87810-56-8

Related CAS Registry Numbers(s): 87860-39-7

Molecular Formula: C<sub>19</sub>H<sub>27</sub>O<sub>9</sub>P

Molecular Weight: 430.391

Accurate Mass: 430.139272

Percentage Composition: C 53.02%; H 6.32%; O 33.46%; P 7.20%

General Statement: Triene antibiotic

Biological Source: Prod. by *Streptomyces pulveraceus* sub. *fostreus*

Biological Use/Importance: Shows antitumour props. Also active against yeasts. A specific inhibitor of topoisomerase II, does not bind to DNA

Physical Description: Hygroscopic solid + 1½ H<sub>2</sub>O (as partial Na salt)

Optical Rotation: [α]<sub>D</sub> +33 (c, 1 in 0.1M phosphate buffer, pH 7)

Solubility: BERDY SOL: Sol. MeOH, bases, H<sub>2</sub>O; fairly sol. butanol; poorly sol. Me<sub>2</sub>CO, hexane

UV: [neutral] λ<sub>max</sub> 259 (sh) (ε 31200); 268 (ε 39900); 278 (sh) (ε 29800) (MeOH) (Derep) [neutral] λ<sub>max</sub> 268 (E1%/1cm 825) (MeOH) (Berdy)

>>Derivative: 13-Deoxy

Synonym(s): Antibiotic PD 113270. PD 113270. CL 1565B. Antibiotic CL 1565B

CAS Registry Number: 87860-37-5

Molecular Formula: C<sub>19</sub>H<sub>27</sub>O<sub>8</sub>P

Molecular Weight: 414.391

Accurate Mass: 414.144357

Percentage Composition: C 55.07%; H 6.57%; O 30.89%; P 7.47%

Biological Source: Prod. by *Streptomyces pulveraceus* sub. *fostreus*

Use/Importance: Antitumour agent

Physical Description: Solid

Optical Rotation: [α]<sub>D</sub> +31 (phosphate buffer)

Solubility: BERDY SOL: Sol. MeOH, bases, H<sub>2</sub>O; fairly sol. butanol; poorly sol. Me<sub>2</sub>CO, hexane

UV: [neutral] λ<sub>max</sub> 267 (E1%/1cm 805) (MeOH) (Berdy)

>>Derivative: 5-Hydroxy

Synonym(s): Antibiotic PD 113271. PD 113271. CL 1565T. Antibiotic CL 1565T

CAS Registry Number: 87860-38-6

Molecular Formula: C<sub>19</sub>H<sub>27</sub>O<sub>10</sub>P

Molecular Weight: 446.39

Accurate Mass: 446.134187

Percentage Composition: C 51.12%; H 6.10%; O 35.84%; P 6.94%

Biological Source: Prod. by *Streptomyces pulveraceus* sub. *fostreus*

Use/Importance: Antitumour agent

Physical Description: Pale yellow solid

Other Data: There is also a further component of the CL 1565 complex, Antibiotic CL 1565C

#### References:

- Tunac, J.B. *et al.*, *J. Antibiot.*, 1983, **36**, 1595, (*isol, props*)  
Stampwala, S.S. *et al.*, *J. Antibiot.*, 1983, **36**, 1601, (*isol*)  
Hokanson, G.C. *et al.*, *J.O.C.*, 1985, **50**, 462, (*struct*)  
Mamber, S.W. *et al.*, *J. Antibiot.*, 1986, **39**, 1467, (*props*)  
*U.S. Pat.*, 1986, 4 578 383; *CA*, **105**, 113609  
Susick, R.L. *et al.*, *Fundam. Appl. Toxicol.*, 1990, **15**, 258, (*tox*)  
Boger, D.L. *et al.*, *J.O.C.*, 1997, **62**, 1748, (*abs config*)  
Boger, D.L. *et al.*, *J.A.C.S.*, 2001, **123**, 4161-4167, (*synth*)