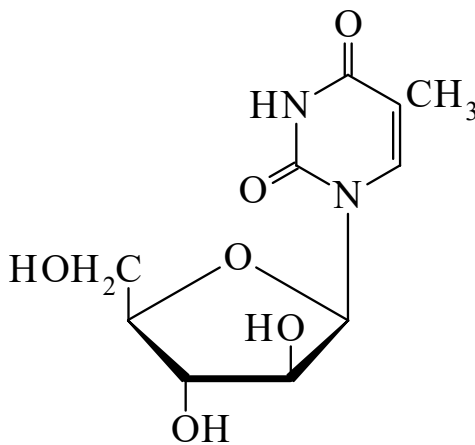




>>Entry Name: 1-Arabinofuranosylthymine

Synonym(s): 1-Arabinofuranosyl-5-methyl-2,4(1*H*,3*H*)-pyrimidinedione, 9Cl. 1-(Arabinofuranosyl)-5-methyluracil



CAS Registry Number: 605-23-2

Related CAS Registry Numbers(s): 2946-29-4

Molecular Formula: C₁₀H₁₄N₂O₆

Molecular Weight: 258.23

Accurate Mass: 258.085188

Percentage Composition: C 46.51%; H 5.46%; N 10.85%; O 37.17%

Calculated Log P Data: Log P -2.33 (calc)

Sigma: T3766

>>Variant: β-D-form

Synonym(s): Spongothymidine. Ara-T

Molecular Formula: C₁₀H₁₄N₂O₆

Molecular Weight: 258.23

Accurate Mass: 258.085188

Percentage Composition: C 46.51%; H 5.46%; N 10.85%; O 37.17%

Biological Source: Isol. from Caribbean sponge, *Cryptotethia crypta*

Use/Importance: Antiviral agent

Melting Point: Mp 194-195°. Mp 242°

Optical Rotation: [α]_D²⁸+90 (c, 0.8 in Py)

UV: [base] λ_{max} 267 (ε) (pH 12) (Derep) [neutral] λ_{max} 267 (ε 9600) (pH 7.2) (Derep) [neutral] λ_{max} 269 (ε 9250) (H₂O) (Berdy)

Other Data: Low acute toxicity

References:

- Bergmann, W. *et al.*, *J.O.C.*, 1955, **20**, 1501, (*isol, struct*)
Fr. Pat., 1965, *Upjohn*, 1 396 003; *CA*, **63**, 13392d, (*synth*)
Tougard, P., *Acta Cryst. B*, 1973, **29**, 2227, (*cryst struct*)
Mueller, W.E.G., *FEBS-Symp.*, 1979, **57**, 327, (*rev*)
Soike, K.F. *et al.*, *Antiviral Res.*, 1984, **4**, 245, (*pharmacol*)
Gosselin, G. *et al.*, *Nucleosides Nucleotides*, 1984, **3**, 265, (*synth*)
Machida, H. *et al.*, *Microbiol. Immunol.*, 1991, **35**, 963, (*pharmacol*)
Hirota, K. *et al.*, *Synthesis*, 1993, 213, (*synth, bibl, pmr, ms*)