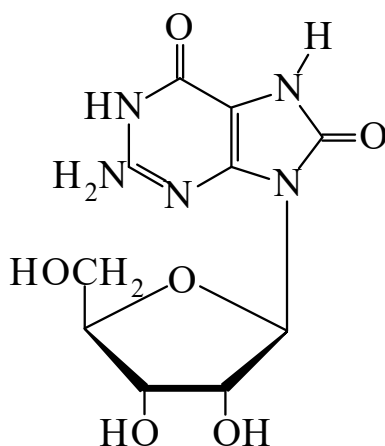




>>Entry Name: 7,8-Dihydro-8-oxoguanosine, 9Cl

Synonym(s): 8-Hydroxyguanosine. 2-Amino-9-β-D-ribofuranosyl-6,8(1*H*,9*H*)-purinedione, 8Cl. 2-Amino-8-hydroxy-9-β-D-ribofuranosyl-9*H*-purin-6(1*H*)-one. 8-Hydroxy-9-β-D-ribofuranosylguanine



CAS Registry Number: 3868-31-3

Molecular Formula: C₁₀H₁₃N₅O₆

Molecular Weight: 299.243

Accurate Mass: 299.086585

Percentage Composition: C 40.14%; H 4.38%; N 23.40%; O 32.08%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 229-231 dec.°

>>Derivative: 8-Me ether

Synonym(s): 8-Methoxyguanosine, 9Cl

CAS Registry Number: 7057-53-6

Molecular Formula: C₁₁H₁₅N₅O₆

Molecular Weight: 313.269

Accurate Mass: 313.102235

Percentage Composition: C 42.17%; H 4.83%; N 22.36%; O 30.64%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 216 dec.°

>>Derivative: 8-Benzyl ether

CAS Registry Number: 3868-36-8

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 170-171°

>>Derivative: 2'-Deoxy

Synonym(s): 8-Hydroxy-2'-deoxyguanosine

CAS Registry Number: 88847-89-6

Molecular Formula: C₁₀H₁₃N₅O₅

Molecular Weight: 283.243

Accurate Mass: 283.09167

Percentage Composition: C 42.41%; H 4.63%; N 24.73%; O 28.24%

Source/Synthesis: Nucleoside present in oxygen radical damaged DNA

Other Data: λ_{max} 247, 293 nm (pH1, pH6), λ_{max} 248, 280 nm (pH11)

Sigma: H5653

References:

- Holmes, R.E. *et al.*, *J.A.C.S.*, 1965, **87**, 1772, (*deriv*)
Ikehara, M. *et al.*, *Chem. Pharm. Bull.*, 1966, **14**, 46, (*deriv*)
Ogilvie, K.K. *et al.*, *J.O.C.*, 1971, **36**, 2556, (*synth*)
Uesugi, S. *et al.*, *J.A.C.S.*, 1977, **99**, 3250, (*cmr*)
Lin, T.-S. *et al.*, *J. Med. Chem.*, 1985, **28**, 1194, (*synth, pmr*)
Lu, L.-J. *et al.*, *Chem. Pharm. Bull.*, 1991, **39**, 1880, (*8-hydroxy-2'-deoxyguanosine*)