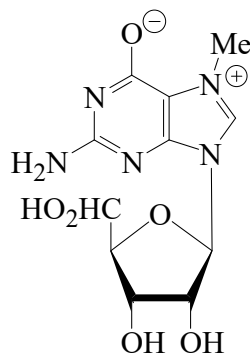




>>Entry Name: 7-Methylguanosine

Synonym(s): 2-Amino-6,9-dihydro-7-methyl-6-oxo-9-β-D-ribofuranosyl-1*H*-purinium hydroxide inner salt, 9Cl



CAS Registry Number: 20244-86-4

Related CAS Registry Numbers(s): 22164-16-5 81100-62-1 139008-87-0

Molecular Formula: C₁₁H₁₅N₅O₅

Molecular Weight: 297.27

Accurate Mass: 297.10732

Percentage Composition: C 44.44%; H 5.09%; N 23.56%; O 26.91%

Biological Source: Modified nucleoside found rarely in tRNAs. Main prod. of DNA methylation by carcinogenic and mutagenic agents

Use/Importance: Mutagenic agent causing base mispairing in DNA

Physical Description: Cryst. + 2H₂O

Melting Point: Mp 160-161°

Optical Rotation: [α]_D -33.5 (c, 0.4 in H₂O)

Hazard & Toxicity: Mutagen

Fluka: 67075

Sigma: M4387

>>Derivative: 5'-Phosphate

CAS Registry Number: 10162-58-0

Molecular Formula: C₁₁H₁₆N₅O₈P

Molecular Weight: 377.25

Accurate Mass: 377.073652

Percentage Composition: C 35.02%; H 4.27%; N 18.56%; O 33.93%; P 8.21%

UV: [neutral] λ_{max} 258 (ε 10300) (phosphate buffer, pH 6.8)

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