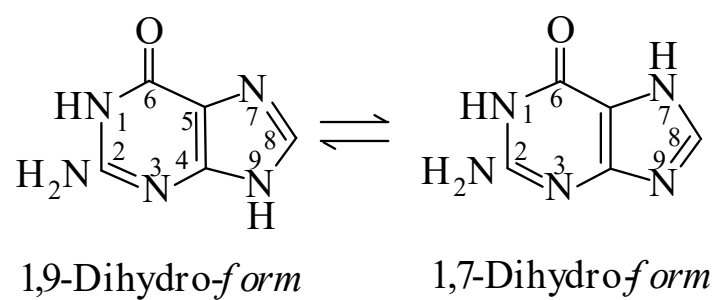




>>Entry Name: Guanine

Synonym(s): 2-Amino-1,7-dihydro-6*H*-purin-6-one, 9Cl. 2-Aminohypoxanthine. 2-Amino-6-hydroxypurine. 2-Amino-6-purinol



CAS Registry Number: 73-40-5

Molecular Formula: C₅H₅N₅O

Molecular Weight: 151.127

Accurate Mass: 151.04941

Percentage Composition: C 39.74%; H 3.33%; N 46.34%; O 10.59%

Biological Source: Occurs widely in animals and plants. Component of nucleic acids

Physical Description: Cryst.

Melting Point: Mp 300°

Aldrich: G1195-0

Fluka: 51020

Rare Chemicals Library: S42321-1

Sigma: G6779

>>Derivative: Hydrochloride

CAS Registry Number: 635-39-2

Extra CAS Registry Numbers(s): 18602-14-7

Physical Description: Needles + 2H₂O (dil. HCl)

>>Derivative: *N*²-Ac

CAS Registry Number: 19962-37-9

Molecular Formula: C₇H₇N₅O₂

Molecular Weight: 193.165

Accurate Mass: 193.059975

Percentage Composition: C 43.53%; H 3.65%; N 36.26%; O 16.57%

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 350°

Sigma: A4750

>>Derivative: *N*²-Benzoyl

CAS Registry Number: 21323-87-5

Molecular Formula: C₁₂H₉N₅O₂

Molecular Weight: 255.235

Accurate Mass: 255.075625

Percentage Composition: C 56.47%; H 3.55%; N 27.44%; O 12.54%

Physical Description: Cryst. (EtOH aq.)

Melting Point: Mp 315-340°

>>Derivative: *N*²-Me

Synonym(s): *N*²-Methylguanine. 6-Hydroxy-2-methylaminopurine. 2-(Methylamino)hypoxanthine

CAS Registry Number: 10030-78-1

Molecular Formula: C₆H₇N₅O

Molecular Weight: 165.154

Accurate Mass: 165.06506

Percentage Composition: C 43.64%; H 4.27%; N 42.40%; O 9.69%

Biological Source: Occurs in human urine and as a component of yeast nucleic acid

Physical Description: Cryst. + 1H₂O (H₂O)

Melting Point: Mp 200 dec.°. Mp 288° (as picrate)

Optical Rotation: [α]_D²⁰ -34.6 (c, 1.01 in DMSO/EtOH 1:1)

Sigma: H3881