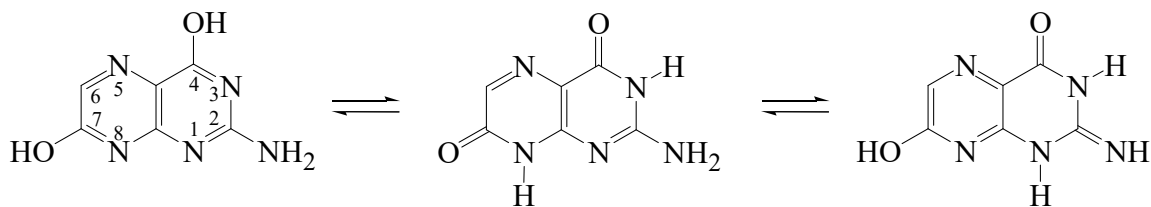




>>Entry Name: 2-Amino-4,7-dihydroxypteridine

Synonym(s): 2-Amino-4,7(1*H*,8*H*)-pteridinedione, 9Cl. Isoxanthopterin. Ranachrome 4



CAS Registry Number: 529-69-1

Molecular Formula: C₆H₅N₅O₂

Molecular Weight: 179.138

Accurate Mass: 179.044325

Percentage Composition: C 40.23%; H 2.81%; N 39.09%; O 17.86%

Biological Source: Widespread insect pigment found in amphibian and fish skin; normal constit. of urine

Melting Point: Mp 300°

pKa Value: p*K*_{a1} 7.34; p*K*_{a2} 10.06 (20°, H₂O)

Aldrich: 10007-2

Fluka: 59945

Sigma: 17388

>>Variant: 1*H*,3*H*-form

Molecular Formula: C₆H₅N₅O₂

Molecular Weight: 179.138

Accurate Mass: 179.044325

Percentage Composition: C 40.23%; H 2.81%; N 39.09%; O 17.86%

>>Derivative: Me ether, 1,3-di-Me

Synonym(s): *N*¹,*N*³,*O*⁷-Trimethylisoxanthopterin

Molecular Formula: C₉H₁₁N₅O₂

Molecular Weight: 221.218

Accurate Mass: 221.091275

Percentage Composition: C 48.87%; H 5.01%; N 31.66%; O 14.46%

Biological Source: Isol. from a *Eudistoma* sp.

Physical Description: Solid

UV: [neutral] λ_{max} 208 (sh) (log ε 4); 236 (sh) (log ε 3.7); 268 (log ε 3.4); 316 (log ε 3.6); 328 (sh) (log ε 3.6); 350 (sh) (log ε 3) (MeOH)

References:

Aldrich Library of NMR Spectra, 2nd edn., 1983, **2**, 769A, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 895D, (*ir*)

Pfleiderer, W. *et al.*, *Chem. Ber.*, 1961, **94**, 1, (*struct, bibl, uv*)

Konrad, G. *et al.*, *Chem. Ber.*, 1970, **103**, 735, (*uv, props*)

Taylor, E.C. *et al.*, *J.O.C.*, 1975, **40**, 2341, (*synth, bibl*)

Pfleiderer, W., *J. Het. Chem.*, 1992, **29**, 583, (*rev*)

Van Wagoner, R.M. *et al.*, *J. Nat. Prod.*, 2001, **64**, 1100-1101, (*N,N,O-trimethyl*)