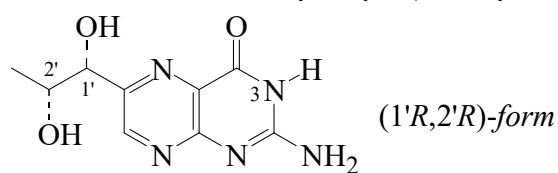




>>Entry Name: **Biopterin**

Synonym(s): 2-Amino-6-(1,2-dihydroxypropyl)-4(1*H*)-pteridinone, 9C1. 2-Amino-4-hydroxy-6-(1,2-dihydroxypropyl)pterin



Molecular Formula: C₉H₁₁N₅O₃

Molecular Weight: 237.218

Accurate Mass: 237.08619

Percentage Composition: C 45.57%; H 4.67%; N 29.52%; O 20.23%

>>Variant: (1'*R*,2'*R*)-form

Synonym(s): D-*threo*-form. **Dictyopterin**

CAS Registry Number: 13019-52-8

Molecular Formula: C₉H₁₁N₅O₃

Molecular Weight: 237.218

Accurate Mass: 237.08619

Percentage Composition: C 45.57%; H 4.67%; N 29.52%; O 20.23%

Biological Source: Isol. from *Dictyostelium discoideum*

Melting Point: Mp 300°

pKa Value: p*K*_{a2} 7.92

>>Variant: (1'*R*,2'*S*)-form

Synonym(s): L-*erythro*-form

CAS Registry Number: 22150-76-1

Molecular Formula: C₉H₁₁N₅O₃

Molecular Weight: 237.218

Accurate Mass: 237.08619

Percentage Composition: C 45.57%; H 4.67%; N 29.52%; O 20.23%

Biological Source: Widely distributed in microorganisms, insects, algae, amphibia and mammals. Found in urine

Use/Importance: Growth factor

Physical Description: Pale yellow cryst. (AcOH aq.)

Melting Point: Mp 250-280 dec.°

Optical Rotation: [α]_D²⁰ -66 (c, 0.2 in 0.1*M* HCl)

pKa Value: p*K*_{a2} 7.89

Aldrich: 86228-2

Fluka: 14390

Sigma: B2517

>>Derivative: 1'-*O*-D-Glucopyranoside

Synonym(s): **Biopterin glucose**

CAS Registry Number: 32838-67-8

Molecular Formula: C₁₅H₂₁N₅O₈

Molecular Weight: 399.36

Accurate Mass: 399.139015

Percentage Composition: C 45.11%; H 5.30%; N 17.54%; O 32.05%

Biological Source: Constit. of a marine plankton

>>Derivative: 2'-*O*-α-D-Glucopyranoside

CAS Registry Number: 235416-12-3

Molecular Formula: C₁₅H₂₁N₅O₈

Molecular Weight: 399.36

Accurate Mass: 399.139015

Percentage Composition: C 45.11%; H 5.30%; N 17.54%; O 32.05%

Biological Source: Isol. from *Spirulina (Arthrospira) platensis*