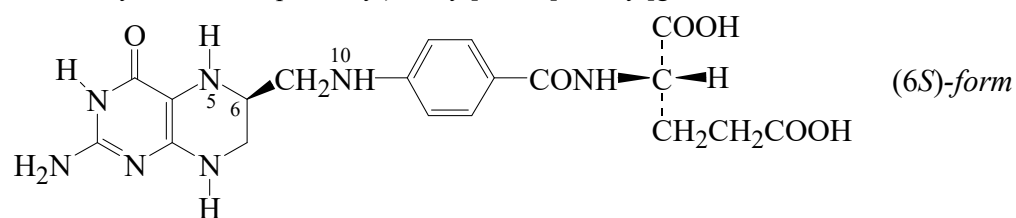




>>Entry Name: 5,6,7,8-Tetrahydrofolic acid

Synonym(s): *N*-[4-[[[(2-Amino-1,4,5,6,7,8-hexahydro-4-oxo-6-pteridiny)methyl]amino]benzoyl]glutamic acid, 9Cl



Related CAS Registry Numbers(s): 31690-08-1

Molecular Formula: C₁₉H₂₃N₇O₆

Molecular Weight: 445.434

Accurate Mass: 445.170983

Percentage Composition: C 51.23%; H 5.20%; N 22.01%; O 21.55%

>>Variant: (6*R*)-form

CAS Registry Number: 74708-38-6

Molecular Formula: C₁₉H₂₃N₇O₆

Molecular Weight: 445.434

Accurate Mass: 445.170983

Percentage Composition: C 51.23%; H 5.20%; N 22.01%; O 21.55%

>>Derivative: 5-Formyl

>>Variant: (6*S*)-form

CAS Registry Number: 71963-69-4

Molecular Formula: C₁₉H₂₃N₇O₆

Molecular Weight: 445.434

Accurate Mass: 445.170983

Percentage Composition: C 51.23%; H 5.20%; N 22.01%; O 21.55%

Use/Importance: Essential coenzyme, product of reduction of folic acid by dihydrofolate reductase. Involved in C₁-transfer during synthesis of nucleoside bases

Optical Rotation: [α]_D −49.9 (c, 0.149 in 1.5*M* TRIS/HCl; 0.2*M* EtSH)

Other Data: Readily oxid. in air

>>Derivative: *N*¹⁰-Formyl

CAS Registry Number: 2800-34-2

Extra CAS Registry Numbers(s): 73650-39-2 74644-66-9

Molecular Formula: C₂₀H₂₃N₇O₇

Molecular Weight: 473.444

Accurate Mass: 473.165898

Percentage Composition: C 50.74%; H 4.90%; N 20.71%; O 23.66%

Source/Synthesis: Product of formylation of parent tetrahydrofolic acid

Other Data: Gives [HRM56-O](#) on heating

>>Derivative: 5-Formyl

>>Derivative: 5-*N*-Me

Synonym(s): 5-Methyltetrahydrofolic acid

CAS Registry Number: 31690-09-2

Molecular Formula: C₂₀H₂₅N₇O₆

Molecular Weight: 459.461

Accurate Mass: 459.186633

Percentage Composition: C 52.28%; H 5.48%; N 21.34%; O 20.89%

Biological Source: Widely distributed in milk, fruit and vegetables

Use/Importance: Folate cofactor. Source of Me groups in biosynth. of methionine from homocysteine