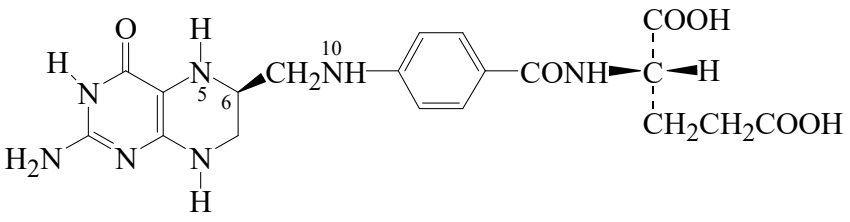
>>**Entry Name: 5,6,7,8-Tetrahydrofolic acid**
Synonym(s): *N*-[4-[[(2-Amino-1,4,5,6,7,8-hexahydro-4-oxo-6-pteridinyl)methyl]amino]benzoyl]glutamic acid, 9Cl



(6*S*)-*form*

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

Molecular Formula: $C_{19}H_{23}N_7O_6$
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: $C_{19}H_{23}N_7O_6$
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: $C_{19}H_{23}N_7O_6$
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 C_1-transfer during synthesis of nucleoside bases
Optical Rotation: $[\alpha]_D$ –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: $C_{20}H_{23}N_7O_7$
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: $C_{20}H_{25}N_7O_6$
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