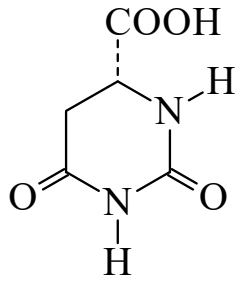
>>**Entry Name: Hexahydro-2,6-dioxo-4-pyrimidinecarboxylic acid,** 9CI
Synonym(s): Dihydroorotic acid. Hydroorotic acid



(*R*)-*form*

CAS Registry Number: 155-54-4

Molecular Formula: $C_5H_6N_2O_4$
Molecular Weight: 158.113
Accurate Mass: 158.032758
Percentage Composition: C 37.98%; H 3.82%; N 17.72%; O 40.48%

Rare Chemicals Library: S94164-6

>>**Variant:** (*R*)-form
Synonym(s): D-form

CAS Registry Number: 5988-53-4
Molecular Formula: $C_5H_6N_2O_4$
Molecular Weight: 158.113
Accurate Mass: 158.032758
Percentage Composition: C 37.98%; H 3.82%; N 17.72%; O 40.48%
Melting Point: Mp 266 dec.°
Optical Rotation: $[\alpha]_D^{26}$ –34.29 (c, 2.49 in 2.5% $NaHCO_3$ aq.)

>>**Derivative:** 1-Me

Melting Point: Mp 221-222°
Optical Rotation: $[\alpha]_D$ –37 (c, 0.5 in DMF)

>>**Derivative:** 3-Et

Melting Point: Mp 160-161°
Optical Rotation: $[\alpha]_D$ –42.6 (c, 0.5 in DMF)

>>**Variant:** (*S*)-form
Synonym(s): L-form

CAS Registry Number: 5988-19-2
Molecular Formula: $C_5H_6N_2O_4$
Molecular Weight: 158.113
Accurate Mass: 158.032758
Percentage Composition: C 37.98%; H 3.82%; N 17.72%; O 40.48%
Use/Importance: Key intermed. in pyrimidine biosynth. from aspartic acid
Melting Point: Mp 266 dec.°
Optical Rotation: $[\alpha]_D^{25}$ +33.2 (c, 1.99 in 1% $NaHCO_3$ aq.)
Aldrich: 28559-5
Sigma: D7128

>>**Derivative:** 1-Me

Molecular Formula: $C_6H_8N_2O_4$
Molecular Weight: 172.14
Accurate Mass: 172.048408
Percentage Composition: C 41.86%; H 4.68%; N 16.27%; O 37.18%
Melting Point: Mp 219-221°
Optical Rotation: $[\alpha]_D$ +37.5 (c, 0.5 in DMF)