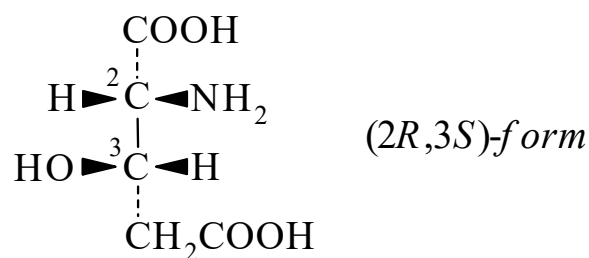




>>Entry Name: 2-Amino-3-hydroxypentanedioic acid

Synonym(s): 3-Hydroxyglutamic acid, 9CI



CAS Registry Number: 533-62-0

Related CAS Registry Numbers(s): 2897-27-0 5985-23-9 13593-84-5 13593-85-6 17268-00-7 17598-55-9 18304-61-5 23150-61-0 25541-20-2 26367-39-5 32221-84-4 34266-86-9 67685-10-3 115246-61-2 131320-40-6 134733-90-7

Molecular Formula: C<sub>5</sub>H<sub>9</sub>NO<sub>5</sub>

Molecular Weight: 163.13

Accurate Mass: 163.048074

Percentage Composition: C 36.81%; H 5.56%; N 8.59%; O 49.04%

>>Variant: (2R,3S)-form

Synonym(s): (–)-*threo*-form

Molecular Formula: C<sub>5</sub>H<sub>9</sub>NO<sub>5</sub>

Molecular Weight: 163.13

Accurate Mass: 163.048074

Percentage Composition: C 36.81%; H 5.56%; N 8.59%; O 49.04%

Melting Point: Mp 184-186° (as hydrochloride)

Optical Rotation:  $[\alpha]_{\text{D}}^{28} -19.8$  (c, 1 in 20% HCl aq.)

>>Variant: (2S,3R)-form

Synonym(s): (+)-*threo*-form

CAS Registry Number: 6208-98-6

Molecular Formula: C<sub>5</sub>H<sub>9</sub>NO<sub>5</sub>

Molecular Weight: 163.13

Accurate Mass: 163.048074

Percentage Composition: C 36.81%; H 5.56%; N 8.59%; O 49.04%

General Statement: Component of [CLC20-I](#)

>>Derivative: Hydrochloride

CAS Registry Number: 95715-93-8

Melting Point: Mp 203° (180° dec.)

Optical Rotation:  $[\alpha]_{\text{D}}^{28} +21$  (c, 1.4 in HCl aq.)

>>Derivative: Di-Me ester, hydrochloride

CAS Registry Number: 148261-88-5

Physical Description: Cryst. (EtOAc/MeOH)

Optical Rotation:  $[\alpha]_{\text{D}}^{28} +11$  (c, 1.2 in MeOH)

>>Derivative: Di-Me ester, *N*-*tert*-butyloxycarbonyl

CAS Registry Number: 123076-67-5

Physical Description: Pale yellow oil

Optical Rotation:  $[\alpha]_{\text{D}}^{20} +28.9$  (CHCl<sub>3</sub>) (as HCl salt)

>>Variant: (2S,3S)-form

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

CAS Registry Number: 6209-00-3

Molecular Formula: C<sub>5</sub>H<sub>9</sub>NO<sub>5</sub>

Molecular Weight: 163.13

Accurate Mass: 163.048074

Percentage Composition: C 36.81%; H 5.56%; N 8.59%; O 49.04%

Biological Source: Found in the ganglions of various molluscs

Use/Importance: Neurotransmitter