



>>Entry Name: 4-Aminobutanoic acid, 9CI

Synonym(s): γ -Aminobutyric acid. Piperidinic acid. Piperidic acid. Aminalon. Gamalon. GABA

CAS Registry Number: 56-12-2

Extra CAS Registry Numbers(s): 28805-76-7

$\text{H}_2\text{NCH}_2\text{CH}_2\text{CH}_2\text{COOH}$

Molecular Formula: $\text{C}_4\text{H}_9\text{NO}_2$

Molecular Weight: 103.121

Accurate Mass: 103.063329

Percentage Composition: C 46.59%; H 8.80%; N 13.58%; O 31.03%

Biological Source: Widely distributed in higher plants. The natural inhibitory transmitter at synaptic junctions in some regions of the mammalian brain and spinal cord

Biological Use/Importance: Antihypertensive agent

Physical Description: Prisms (EtOH)

Melting Point: Mp 203 dec.°

Solubility: V. sol. H_2O ; sl. sol. EtOH, Me_2CO ; insol. Et_2O ; BERDY SOL: Sol. H_2O

Calculated Log P Data: Log P -3.33 (calc)

UV: [neutral] λ_{max} (H_2O) (Berdy)

Other Data: Homopolymers (polyamides) are usually derived from the lactam 2-Pyrrolidinone [BGS32-V](#)

Hazard & Toxicity: LD_{50} (mus, orl) 12680 mg/kg

Aldrich: A4440-1

Fluka: 7240

Sigma: A5835

>>Derivative: Hydrochloride

Melting Point: Mp 135-136°

>>Derivative: Hydrobromide

CAS Registry Number: 36551-16-3

Physical Description: Orange solid

Melting Point: Mp 215°

>>Derivative: Me ester

CAS Registry Number: 13031-60-2

Molecular Formula: $\text{C}_5\text{H}_{11}\text{NO}_2$

Molecular Weight: 117.147

Accurate Mass: 117.078979

Percentage Composition: C 51.26%; H 9.46%; N 11.96%; O 27.31%

Physical Description: Solid (EtOH/ Et_2O) (as hydrochloride)

Melting Point: Mp 119° (114-115°) (hydrochloride)

Fluka: 7245

>>Derivative: Et ester

CAS Registry Number: 5959-36-4

Molecular Formula: $\text{C}_6\text{H}_{13}\text{NO}_2$

Molecular Weight: 131.174

Accurate Mass: 131.094629

Percentage Composition: C 54.94%; H 9.99%; N 10.68%; O 24.39%

Boiling Point: Bp_{12} 75-77°

>>Derivative: Et ester; hydrochloride

Melting Point: Mp 65-72°

Other Data: Hygroscopic

Hazard & Toxicity: LD_{50} (mus, ivn) 425 mg/kg. Exp. reprod. effects