



**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 104.108

**Accurate Mass:** 104.058578

**Percentage Composition:** C 34.61%; H 7.75%; N 26.91%; O 30.74%

**Biological Source:** Isol. in free form from seeds of *Mimosa* spp. Residue present in Viomycin [CJN84-T](#) and Albizziine [HDW42-L](#)

**Melting Point:** Mp 237 dec.°

>>Derivative: Hydrochloride (1:2)

**CAS Registry Number:** 28843-13-2

**Melting Point:** Mp 237 dec.°

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>25</sup> +25.2 (1M HCl)

>>Derivative: N<sup>3</sup>-Ac

**Synonym(s):** 3-Acetamido-2-aminopropanoic acid.  $\beta$ -Acetamidoalanine

**CAS Registry Number:** 20584-70-7

**Molecular Formula:** C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

**Molecular Weight:** 146.146

**Accurate Mass:** 146.069143

**Percentage Composition:** C 41.09%; H 6.90%; N 19.17%; O 32.84%

**Biological Source:** Isol. from *Acacia armata* seeds

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>20</sup> -81 (c, 8 in H<sub>2</sub>O). [ $\alpha$ ]<sub>D</sub><sup>20</sup> -33 (c, 4 in 6M HCl)

>>Derivative: N<sup>2</sup>-tert-Butyloxycarbonyl

**Molecular Formula:** C<sub>8</sub>H<sub>16</sub>N<sub>2</sub>O<sub>4</sub>

**Molecular Weight:** 204.225

**Accurate Mass:** 204.111008

**Percentage Composition:** C 47.05%; H 7.90%; N 13.72%; O 31.34%

**Use/Importance:** Synthon for various antibiotics

**Melting Point:** Mp 202° (197-199°)

>>Derivative: N<sup>3</sup>-Me

**Synonym(s):** 2-Amino-3-(methylamino)propanoic acid

**CAS Registry Number:** 15920-93-1

**Biological Source:** Aminoacid from seeds of *Cycas circinalis*

**Physical Description:** Cryst. (as hydrochloride)

**Melting Point:** Mp 168 dec.° (hydrochloride)

**Optical Rotation:** [ $\alpha$ ]<sub>D</sub><sup>25</sup> +35 (c, 1.15 in 5M HCl)

**Hazard & Toxicity:** Toxic, exp. carcinogen

>>Derivative: N<sup>3</sup>-Nitro

**Synonym(s):** (3-Nitroamino)alanine, 9Cl. 2-Amino-3-nitraminopropionic acid

**CAS Registry Number:** 58130-89-5

**Molecular Formula:** C<sub>3</sub>H<sub>7</sub>N<sub>3</sub>O<sub>4</sub>

**Molecular Weight:** 149.106

**Accurate Mass:** 149.043657

**Percentage Composition:** C 24.17%; H 4.73%; N 28.18%; O 42.92%

**Biological Source:** Isol. from *Agaricus silvaticus*

**Physical Description:** Cryst. (EtOH aq.)

>>Variant: ( $\pm$ )-form

**CAS Registry Number:** 6018-54-8

**Molecular Formula:** C<sub>3</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>

**Molecular Weight:** 104.108

**Accurate Mass:** 104.058578

**Percentage Composition:** C 34.61%; H 7.75%; N 26.91%; O 30.74%

**Melting Point:** Mp 110-120° (softens at 97°)

**pKa Value:** pK<sub>a2</sub> 6.79; pK<sub>a3</sub> 9.51 (25°, 0.1M KCl)

**Other Data:** Hygroscopic. Absorbs CO<sub>2</sub>