>>**Entry Name: (4-Aminobutyl)guanidine,** 9CI
ENTRY UNDER REVIEW
Synonym(s): 4-Guanidinobutylamine. 1-Amino-4-guanidinobutane. **Agmatine**

CAS Registry Number: 306-60-5

$HN=^{6}C(NH_2)NH(CH_2)_3CH_2NH_2$

Molecular Formula: $C_5H_{14}N_4$
Molecular Weight: 130.192
Accurate Mass: 130.121846
Percentage Composition: C 46.13%; H 10.84%; N 43.03%
Biological Source: Present in ergot, pollen of *Ambrosia artemisiifolia* (Compositae), the sea anemone *Anthopleura japonica* and herring semen
Metabolism: Metabolic intermediate for polyamines. Synth. in mammalian brain
Biological Use/Importance: Endogenous neurotransmitter. Inhibits hyperalgesia and tolerance to morphine. NMDA receptor antagonist and nitric oxide synthase inhibitor
Melting Point: Mp 101.5-103°

>>**Derivative:** Sulfate

CAS Registry Number: 2482-00-0
Physical Description: Cryst.
Melting Point: Mp 229° (224-225°)
Aldrich: 10144-3
Fluka: 5083
Sigma: A7127

>>**Derivative:** N^1-(4-Hydroxy-*E*-cinnamoyl)
Synonym(s): ***N*^{1}*-trans-p*-Coumaroylagmatine.** 4-Hydroxycinnamoylagmatine

CAS Registry Number: 7295-86-5

Molecular Formula: $C_{14}H_{20}N_4O_2$
Molecular Weight: 276.338
Accurate Mass: 276.158626
Percentage Composition: C 60.85%; H 7.29%; N 20.27%; O 11.58%
Biological Source: Alkaloid from barley seedlings, *Hordeum bulbosum, Hordeum distichon, Hordeum jubatum, Hordeum murinum* and *Hordeum spontaneum* (Gramineae)
Biological Use/Importance: Exhibits weak antifungal activity
Melting Point: Mp 215-217° (as picrate)
Solubility: BERDY SOL: Sol. H_2O
UV: [neutral] λ_{max} 229 (ε 33100); 300 (ε 26300) (H_2O) (Berdy)

>>**Derivative:** N^1-(4-Hydroxy-*Z*-cinnamoyl)
Synonym(s): ***N*^{1}*-cis-p*-Coumaroylagmatine**

Molecular Formula: $C_{14}H_{20}N_4O_2$
Molecular Weight: 276.338
Accurate Mass: 276.158626
Percentage Composition: C 60.85%; H 7.29%; N 20.27%; O 11.58%
Biological Source: Constit. of *Albizzia julibrissin*
Biological Use/Importance: Leaf-opening factor
Physical Description: Syrup or powder
UV: [neutral] λ_{max} 278 (ε 2000) (H_2O)

>>**Derivative:** N^1-(4-Hydroxy-3-methoxy-*E*-cinnamoyl)
Synonym(s): ***N*^{1}*-trans*-Feruloylagmatine**

Molecular Formula: $C_{15}H_{22}N_4O_3$
Molecular Weight: 306.364
Accurate Mass: 306.169191
Percentage Composition: C 58.81%; H 7.24%; N 18.29%; O 15.67%
Biological Source: Isol. from *Triticum aestivum* exposed to low temps.
Biological Use/Importance: Antifungal agent