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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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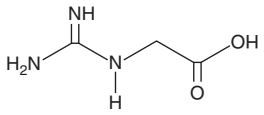
# PRODUCT INFORMATION

## Glycocyamine

*Item No. 35792*

**CAS Registry No.:** 352-97-6
**Formal Name:** N-(aminoiminomethyl)-glycine
**Synonyms:** GAA, Guanidinoacetic Acid, Guanidinoacetate, NSC 1901, NSC 227847, NSC 26360
**MF:** $C_3H_7N_3O_2$
**FW:** 117.1
**Purity:** ≥95%
**Supplied as:** A solid
**Storage:** -20°C
**Stability:** ≥4 years




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Glycocyamine is supplied as a solid. A stock solution may be made by dissolving the glycocyamine in the solvent of choice, which should be purged with an inert gas. Glycocyamine is slightly soluble in DMSO and dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of glycocyamine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of glycocyamine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Glycocyamine is a metabolite of glycine and precursor in the biosynthesis of creatine.[1,2] It is formed from glycine by glycine amidinotransferase (GATM) in the kidney and pancreas, transported to the liver, and methylated by guanidinoacetate N-methyltransferase (GAMT) to form creatine.[1] Levels of glycocyamine are altered in individuals with cerebral creatine deficiency syndromes (CCDSs), inborn errors of metabolism characterized by deficiencies in GATM or GAMT.[3]

### References


1. Ostojic, S.M. Cellular bioenergetics of guanidinoacetic acid: The role of mitochondria. *J. Bioenerg. Biomembr.* **47(5)**, 369-372 (2015).
2. Portocarero, N. and Braun, U. The physiological role of guanidinoacetic acid and its relationship with arginine in broiler chickens. *Poult. Sci.* **100(7)**, 101203 (2021).
3. Stockler, S., Schutz, P.W., and Salomons, G.S. Cerebral creatine deficiency syndromes: Clinical aspects, treatment and pathophysiology. *Subcell. Biochem.* **46**, 149-166 (2007).





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