

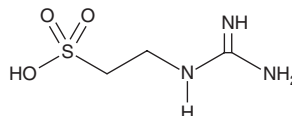
PRODUCT INFORMATION



Guanidinoethyl sulfonate

Item No. 17572

CAS Registry No.: 543-18-0
Formal Name: 2-[(aminoiminomethyl)amino]-ethanesulfonic acid
Synonyms: NSC 667063, Taurocyamine
MF: C₃H₉N₃O₃S
FW: 167.2
Purity: ≥95%
Supplied as: A crystalline 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

Guanidinoethyl sulfonate is supplied as a crystalline solid. Aqueous solutions of guanidinoethyl sulfonate can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of guanidinoethyl sulfonate in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Guanidinoethyl sulfonate, also known as taurocyamine, is a natural guanidine-aurine analog derived from taurine. It is an intermediate of taurine and hypotaurine metabolism and is phosphorylated by taurocyamine kinase.¹ Guanidinoethyl sulfonate competitively inhibits taurine uptake by sodium-dependent taurine transporters in rat hepatocytes ($K_i = 1.75$ mM).² It also acts as a competitive glycine receptor antagonist in mouse striatal neurons.³ Plasma levels of guanidinoethyl sulfonate are significantly increased in patients with chronic renal failure.⁴

References

1. Uda, K., Saishoji, N., Ichinari, S., *et al.* Origin and properties of cytoplasmic and mitochondrial isoforms of taurocyamine kinase. *FEBS J.* **272**(14), 3521-3530 (2005).
2. Ohkuma, S., Tamura, J.i., Kuriyama, K., *et al.* Characteristics of taurine transport in freshly isolated rat hepatocytes. *Jpn. J. Pharmacol.* **31**(6), 1061-1070 (1981).
3. Sergeeva, O.A., Chepkova, A.N., and Hass, H.L. Guanidinoethyl sulphonate is a glycine receptor antagonist in striatum. *Br. J. Pharmacol.* **137**(6), 855-860 (2002).
4. Tanaka, A., Takahashi, Y., Mizokuchi, M., *et al.* Plasma, urinary, and erythrocyte concentrations of guanidino compounds in patients with chronic renal failure. *Ren Fail.* **21**(5), 499-514 (1999).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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