

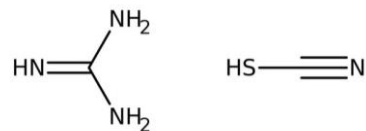
Thiocyanate Guanidine



Thiocyanate, Guanidine, 593-84-0

Product Description

| | | |
|-------------------------|--|-------|
| Name : | Thiocyanate Guanidine | |
| | Aminomethanamide Thiocyanate, Thiocyanic acid, guanidine monothiocyanate, Guanidine isothiocyanate, Guanidinium isothiocyanate, Guanidinium rhodanide, Guanidinium thiocyanate | |
| | CAS: 593-84-0 | |
| Catalog Number : | 128290 | 100 g |
| | 128291 | 500 g |
| | 128292 | 1 kg |



Storage: Store at +2-8°C

Directions for use

Guidelines for use (Boom, 1990)

Buffers:

- Composition of Washing buffer L2:

Dissolve 120 g of Thiocyanate Guanidine (GuSCN) in 100 ml of 0.1 M Tris hydrochloride, pH 6.4. Dissolution of GuSCN was facilitated by heating in a 60 to 65°C water bath under continuous shaking. Buffers L2 is stable for at least 3 weeks at room temperature in the dark.

- Composition of TE buffer (elution buffer) :

10 mM Tris hydrochloride-1 mM EDTA (pH 8.0), which was made from an autoclaved (20 min at 121°C) 100x concentrated stock solution.

DNA and RNA purification by protocol Y/SC from serum and urine

First, the preassembled reaction vessel was vortexed to homogeneity, a 50- μ l sample of serum or urine was then added, and the vessel was immediately vortexed (approximately 5 s). After 10 min at room temperature, the vessel was vortexed again (5 s) and centrifuged (15 s) in an Eppendorf microfuge (fixed angle, 12,000 x g), and the supernatant was disposed of by suction. The silica-NA pellet was subsequently washed (see below) twice with **washing buffer L2**, twice with ethanol 70% (vol/vol), and once with acetone. After disposal of the acetone, the vessels were dried at 56°C with open lids in an Eppendorf (Hamburg, Federal Republic of Germany) heat block for 10 min. Elution buffer (in the experiments described here, TE buffer with or without an RNase inhibitor; see technical remarks below) was added, and the vessel was closed, vortexed briefly, and incubated for 10 min at 56°C. The vessel was briefly vortexed again and centrifuged for 2 min at 12,000 x g, and the supernatant containing DNA and RNA was used for further experiments.

DNA and RNA purification by protocol Y/D from cell-rich sources.

This protocol is essentially the same as protocol Y/SC, except that it uses diatoms rather than size-fractionated SC and allows for the purification of relatively large (10 to 20 μg) amounts of genomic NA as shown for gramnegative bacteria. Bacteria (5 to 10 pl) were scraped from plates and suspended in the test tube, which was further processed as described above for protocol Y/SC. Alternatively, 1 ml of an overnight culture of *Escherichia coli* K-12 HB101 containing a high-copy plasmid was centrifuged (30 s at 12,000 x g), and the bacterial pellet was suspended in 50 pl of TE buffer. This suspension was used as input material and processed as described above for protocol Y/SC.

Washing procedure.

Silica-NA or diatom-NA pellets were washed by the addition of 1 ml of the appropriate washing solution and then vortexed until the pellet was (visually) completely resuspended. After centrifugation (15 s at approximately 12,000 X g), the supernatant was disposed of by suction.

References

- **Bahi M. et al.**, Electroporation and lysis of marine microalga *Karenia brevis* for RNA extraction and amplification, *J. R. Soc. Interface* vol. 8 no. 57 601-608 (2011) [Abstract](#)
- **Boom R. et al.**, Rapid and simple method for purification of nucleic acids, *J Clin Microbiol.* 28(3): 495-503 (1990) [Article](#)
- **Ciska M. et al.**, Lamin-like analogues in plants: the characterization of NMCP1 in *Allium cepa*, *J. Exp. Bot.* 64 (6): 1553-1564 (2013) [Article](#)
- **Hourfar M. et al.**, High-Throughput Purification of Viral RNA Based on Novel Aqueous Chemistry for Nucleic Acid Isolation, *Clinical Chemistry* 51: 1217-1222 (2005) [Article](#)

Legals

Hazard Class: 8
Hazard UN: 1759
Hazard PG: PGIII

Related Products

- Magnetic Silica Beads for RNA and DNA purification, [GO4770](#)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.

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