



Product Information Sheet

G3300 Guanidine Thiocyanate

Synonyms: Guanidinium rhodanide or Guanidinium thiocyanate
CAS: 593-84-0
Formula: $\text{CH}_5\text{N}_3 \cdot \text{HSCN}$
Mol. Weight: 118.16

Properties

Form: Powder
Appearance: Off-White to White
Application: Molecular Biology
Solubility: Soluble in Water
Storage Temp: Room Temperature

Application Notes

Guanidine thiocyanate is a powerful denaturing and chaotropic agent. It's used to solubilized cells in plant molecular biology applications. A protocol for using guanidine thiocyanate in RNA extraction has been published.¹

It has been reported that guanidine thiocyanate is typically used at concentration of 4 to 6 M in RNA extraction protocol.^{2, 3, 4, 5}

References

1. McGookin R (1984) RNA extraction by the guanidine thiocyanate procedure. In JM Walker, ed, Methods in Molecular Biology, Vol 2. Humana Press, Clifton, NJ, pp 113–116
2. Murphy, Angus and and Lincoln Taiz. 1993. Comparison of Metallothionein Gene Expression and Nonprotein Thiols in Ten Arabidopsis Ecotypes. *Plant Physiol.* Vol 109. Pp. 945-954.
3. Pecker, Iris, Rachel Gabbay, Francis X. Cunningham Jr., Joseph Hirschberg. 1996. Cloning and characterization of the cDNA for lycopene β -cyclase from tomato reveals decrease in its expression during fruit ripening. *Plant Molecular Biology.* Vol 30(4). Pp. 807-819.
4. Timpte, C. A K Wilson and M Estelle. 1994. The axr2-1 mutation of Arabidopsis thaliana is a gain-of-function mutation that disrupts an early step in auxin response. *Genetics.* Vol 138(4). Pp. 1239-1249.
5. Wen-Bin Chiu, Chiou-Hong Lin, Chun-Ju Chang, Meng-Hsun Hsieh, and Ai-Yu Wang. 2006. Molecular characterization and expression of four cDNAs encoding sucrose synthase from green bamboo *Bambusa oldhamii*. *New Phytologist.* Vol 170(1). Pp. 53-63.

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