

Product Information Sheet

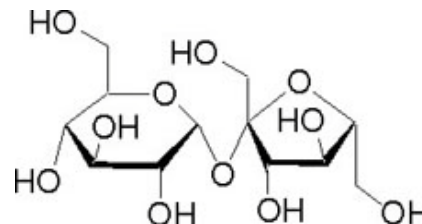
S829

D-Sucrose, Ultra-Pure

Synonym: β -D-Fructofuranosyl- α -D-glucopyranoside; Cane Sugar
 CAS: 57-50-1
 Formula: $C_{12}H_{22}O_{11}$
 Molecular Wt: 342.34

Properties

Form: Powder
 Appearance: White Crystalline
 Application: Carbohydrate Source
 Solubility: Water
 Typical Working Concentration: 10 to 30 g/L
 Storage Temp: Room Temperature
 Other Notes: Plant Tissue Culture Tested



Application Notes

D-Sucrose is derived from cane sugar. It is commonly used in plant tissue culture as a carbohydrate source. Various concentrations of sucrose can be used in plant tissue culture; however, it has been reported that growth and morphogenesis of related plant species can differ when subcultured on the same optimal sucrose concentrations.²

Sucrose concentrations of 15 and 30 g/L have been reported to be optimal concentrations for plant growth of *Calanthe* hybrid 'Bukduseong' x 'Hyesung', while a high concentration of 60 g/L enhanced root growth but root tissues were abnormal.³ Furthermore, it has been reported that a concentration as high as 80 g/L of sucrose helped induce microtubers in potato culture.⁴

PhytoTechnology Laboratories® also carries D-Sucrose, Product No. S391.

References

1. Merck **13**, 8966
2. George G. 1993. Plant Propagation by Tissue Culture, Part 1: The Technology. England: Exegetics Limited, 574 pp.
3. Baque, Md. Abdullahil, Shin, Yun-Kyong, Elsh mari, Turkey, Lee, Eun-Jung, and Paek, Kee-Yoeup. 2011. Effect of light quality, sucrose and coconut water concentration on the microporpagation of *Calanthe* hybrids ('Bukduseong' x 'Hyesung' and 'Chunkwang' x 'Hyesung'). *Australian Journal of Crop Science*. 5(10):1247-1254.
4. Kanwal, Amina, Ali Amir, and Kunwar Shoaib. 2006. *In vitro* microtuberization of potato (*Solanum tuberosum* L.) cultivar kuroda – a new variety in Pakistan. *International Journal of Agriculture & Biology*. 8(3):337-340.

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