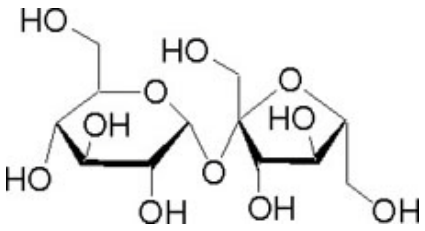
Product Information Sheet

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' × '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, Elshmari, 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' × 'Hyesung' and 'Chunkwang' × '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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