

### Product Information Sheet

## B129

## Bacterial Screening Medium 523

### Properties

Form:	Powder
Appearance:	Yellow to Cream
Application:	Bacterial Screening
Solubility:	Soluble in Water when Heated to Boiling
Typical Working Concentration:	32.15 g/L
Storage Temp:	2 – 6 °C
Other Notes:	pH = 5.5 – 6.5

### Formula (mg/L)

Magnesium Sulfate•7H <sub>2</sub> O	150
Potassium Phosphate, Monobasic	2000
Agar	8000
Casein, Enzymatic Hydrolysate	8000
Sucrose	10,000
Yeast Extract	4000

### Application Notes

This medium is commonly used to screen plant tissues for microbe contamination prior to tissue culturing. Screening plant tissues on a bacterial screening medium prior to culturing can detect unwanted microbial contamination in tissues that may not be apparent on plant tissue culture growth medium, as high sucrose levels can sometimes inhibit or slow the growth of microbes.

This medium contains nutrients to support the growth of a wide range of microbes. It contains a gelling agent and does not require any additional components or pH adjustment. Plant tissues are generally swiped across the surface of the gelled medium or the stem is poked into the surface, and then the plant tissue is then placed onto a separate growth medium, as B129 does not contain nutrients to support plant growth.

Product No. B129 – Bacterial Screening Medium 523 is a slight modification of Viss et al. (1991) containing 8 g/L agar rather than the 10 g/L in the original published formulation.<sup>1</sup> This is a rich medium containing sucrose as the energy source, vitamins from yeast extract, and amino acids from hydrolyzed casein. Bacteria Screening Medium 523 was used in a screening protocol published by Thomas.<sup>2,3</sup>

A general screening period is 2 weeks, however some microbes may grow faster or slower than what may be observable in the 2 week time period. It is dependent on the microbe. Screening your tissues prior to tissue culturing is one of the best ways to prevent future contamination stemming from improper initial disinfestation of plant tissues.

### References

1. Viss, P. R.; Brooks, E. M.; Driver, J. A. (1991) A simplified method for the control of bacterial contamination in woody plant tissue culture. *In Vitro Cell. Dev. Bio.* 27P:42.
2. Thomas, P., (2004) Detection of covert and endophytic bacteria in plant tissue cultures through indexing and molecular approach. 26th Meeting of the Plant Tissue Culture Association of India and National Seminar on Biotechnology for Better Future, Mangalore, (Abstr.), 15–17, p. 19.
3. Thomas P. and G. S. Prakash (2004) Sanitizing Long-Term Micropropagated Grapes from Covert and Endophytic Bacteria and Preliminary Field Testing of Plants after 8 Years *In vitro*. *In Vitro Cellular & Developmental Biology. Plant* Vol. 40, No. 6, pp. 603-607.

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