

B1468 BY-2 medium

Properties:

Form: Powder
 Appearance: White to Yellow
 Application: Plant Tissue Culture
 Solubility: Water
 Typical Working Concentration: 4.63g/L
 Storage Temp: 2-8°C
 Storage Temp of Stock Solution: Preparation of concentrated solutions is not recommended as insoluble precipitates may form.
 Other Notes: Contains the macro- and micronutrients as described by Murashige and Skoog (1962).
 pH = 3.5 – 4.5

Formula (mg/L)

Ammonium Nitrate	1650
Boric Acid	6.2
Calcium Chloride, Anhydrous	332.2
Cobalt Chloride•6H ₂ O	0.025
Cupric Sulfate•5H ₂ O	0.025
Na ₂ EDTA•2H ₂ O	37.26
Ferrous Sulfate	27.8
Magnesium Sulfate, Anhydrous	180.7

Manganese Sulfate•H ₂ O	16.9
Molybdic Acid (Sodium Salt)•2H ₂ O	0.25
Potassium Iodide	0.83
Potassium Nitrate	1900
Potassium Phosphate Monobasic	370
Zinc Sulfate•7H ₂ O	8.6
Myo-Inositol	100
Thiamine HCl	1.0

Application Notes:

This medium was developed for *N. tabacum* L. cv. Bright Yellow 2 (BY-2) suspension cells (Nagata *et al.* 1992). 2,4-d (Prod. No. D295) was added in the original formulation at 0.2 mg/L. This medium has also been used to culture protoplasts (Silva *et al.* 2010).

Please Note: While PhytoTech Labs Inc. tests each lot of this product with two or more plant cell/ tissue culture lines, it is the sole responsibility of the purchaser to determine the appropriateness of this product for the specific plants that are being cultured and applications that are being used.

References:

Nagata T, Yasuyuki N, and S Hasezawa (1992) "Tobacco BY-2 cell line as the "HeLa" cell in the Cell biology of higher plants." *International Review of Cytology*. Vol. 132:1-30.
 Silva AT, Nguyen A, Ye C, Verchot J, and J Ho Moon (2010) "Conjugated polymer nanoparticles for effective siRNA delivery to tobacco BY-2 protoplasts" *BMC Plant Biology* Vol. 10:291

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