PhytoTech LABS

Product Information Sheet

M5605
605 Medium

Properties:

Form:	Fine Powder
Appearance:	White to Yellow Powder
Application:	Plant Tissue Culture
Solubility:	Water
Typical Working Concentration:	11.00 g/L
Storage Temp:	2-8°C
Storage Temp of Stock Solution:	Preparation of concentrated solutions is not recommended as insoluble precipitates may form.

Formula [mg/L]:

	[mg/L]
Ammonium Nitrate	1650
Ammonium Sulfate	277.2
Boric Acid	8
Calcium Chloride, Anhydrous	407.39
Cobalt Chloride, Hexahydrate	0.025
Cupric Sulfate, Pentahydrate	0.025
Na2 EDTA, Dihydrate	59.46
Ferrous Sulfate, Heptahydrate	44.54
Magnesium Sulfate, Anhydrous	234.91
Manganese Sulfate, Monohydrate	22.9
Molybdic Acid (Sodium Salt), Dihydrate	0.4

	[mg/L]
Potassium Iodide	1.28
Potassium Nitrate	5278
Potassium Phosphate, Monobasic	410
Zinc Sulfate, Heptahydrate	8.6
Glycine (Free Base)	0.8
Nicotinic Acid (Free Acid)	3.17
Pyridoxine HCl	0.497
Thiamine HCl	3.368
Myo-Inositol	593.8
Proline	2000

Application Notes:

Plant Tissue Culture Tested
Plant Species: This medium has been used with maize (*Zea mays*)
This medium was originally developed for use in maize Baby Boom and Wuschel transformation protocols to improve monocot transformation. (Lowe *et al.* 2016). It has been used in recalcitrant inbred maize lines (Masters *et al.* 2020), and Fast-Flowering Mini-Maize (McCaw et al. 2021) also.

References:

Lowe et al. (2016) Morphogenic Regulators Baby boom and Wuschel Improve Monocot Transformation. *The Plant Cell* 28(9):1998-2015.

Masters A, Kang M, McCaw M, Zobrist JD, Gordon-Kamm W, Jones T, Wang K. (2020) Agrobacterium-Mediated Immature Embryo Transformation of Recalcitrant Maize Inbred Lines Using Morphogenic Genes. J. Vis. Exp. 156: e60782, doi: 10.3791/60782.

McCaw M, Lee K, Kang M, Zobrist J, Azanu M, Birchler J, Wang K. (2021) Development of a Transformable Fast-Flowering Mini-Maize as a Tool for Maize Gene Editing. *Front. Genome Editing*. 2: doi: 10.3389/fgeed.2020.622227

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