

BG11₀ MEDIUM

For N₂-fixing cyanobacteria growth. (this medium omits the nitrogen source)

PROTOCOL

- Add the stock solutions, and fill with ultrapure water to prepare 1L
- Autoclave
- After Autoclaving add 1 mL 1000x (Fe)

Reagent	Name	ml/L
K ₂ HPO ₄	Dipotassium hydrogen phosphate	10 ml
MgSO ₄ ·7H ₂ O	Magnesium sulfate heptahydrate	10 ml
CaCl ₂ ·2H ₂ O	Calcium chloride dihydrate	10 ml
C ₆ H ₈ O ₇ ·H ₂ O	Citric acid monohydrate*	10 ml
C ₆ H ₈ FeNO ₇	Ferric ammonium citrate*	10 ml
Na ₂ EDTA	Ethylenediaminetetraacetic Acid	10 ml
Na ₂ CO ₃	Sodium carbonate	10ml
-	Trace metal Stock solution A5+Co	1 ml

Composition of stock Solutions:

Trace metal solution A₅+ Co

Reagent	Name	g/L
H ₃ BO ₃	Boric acid	2.86
MnCl ₂ ·4H ₂ O	Manganese dichloride tetrahydrate	1.81
ZnSO ₄ ·7H ₂ O	Zinc Sulphate Heptahydrate	0.222
Na ₂ MoO ₄ ·2H ₂ O	-	0.390
CuSO ₄ ·5H ₂ O	Copper sulfate pentahydrate	0.079
Co(NO ₃) ₂ ·6H ₂ O	Cobalt(II) nitrate hexahydrate	0.049

Adjust the pH to 7.1 after autoclaving.

Reference: Rippka R, Deruelles J, Waterbury JB, Herdman M, Stanier RY (1979) Generic assignments, strain histories and properties of pure cultures of Cyanobacteria Journal of General Microbiology 111, 1-61