Product Information Sheet

B1511
BG-11 Medium

Synonym: Blue-Green (BG) Medium

Properties

Form:	Powder
Appearance:	Cream
Application:	Cyanobacteria Growth Medium
Solubility:	Soluble in Water
Typical Working Concentration:	1.68 g/L
Storage Temp:	2-6ºC
Storage Temp of Stock Solution:	2-6ºC
Biological Assay:	Cell culture tested with *Synechocystis* sp. PCC 6803.

Formula (mg/L)

Boric Acid	2.86	Manganese Chloride·4H2O	1.81
Calcium Chloride Anhydrous	27.18	Na2·Mg·EDTA	1
Citric Acid, Anhydrous	6	Potassium Phosphate dibasic	40
Cobalt Nitrate·6H2O	0.049	Sodium Carbonate Anhydrous	20
Cupric Sulfate·5H2O	0.079	Sodium Molybdate·2H2O	0.39
Ferric Ammonium Citrate	6	Sodium Nitrate	1500
Magnesium Sulfate·7H2O	75	Zinc Sulfate*7H2O	0.222

Application Notes

BG-11 is generally a freshwater growth medium for culturing Cyanobacteria such as *Synechocystis* sp. PCC 6803.

HEPES – H326 (Akira *et al.* 1996) or TES (Xu *et al.* 1994) can be added to buffer the pH. After dissolving the powder medium, adjust to pH 8.0 with KOH or NaOH, and autoclave.

20 mM Hepes (H326) was used during biological testing of this product with Synechocystis sp. PCC 6803

References

Akira, K., K. Lee, H. Fukuzawa, K. Ohyama, and T. Ogawa. (1996) *cemA* homologue essential to CO2 transport in the cynanobacterium *Synechocystis* PCC 6803. *Proceedings of the National Academy of Sciences*. 93:4006-4010.

Rippka, R., J. Deruelles, J. B. Waterbury, M. Herdman, and R. Y. Stanier (1979) Generic assignments, strain histories and properties of pure cultures of cyanobacteria. *Journal of General Microbiology* 111:1-61.

Stanier, R.Y., R. Kunisawa, M. Mandel, and G. Cohen-Bazire. (1971) "Purification and Properties of Unicellular Blue-Green Algae (Order *Chroococcales*)." *Bacteriological Reviews* 35(2):171-205.

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Cyanobacterium *Synechocystis* sp. PCC 6803." *Journal of Biological Chemistry* 279(27): 27971-27979.