

# BG-11 Media Version 3

Dr. Steven Wilhelm

## Abstract

Please contact Dr. Steven Wilhelm (wilhelm@utk.edu) for additional information regarding this protocol.

Adapted from the original publication Rippka, R., DeRulles, J., Waterbury, J. B., Herdman, M. & Stanier, R. Y. Generic assignments, strain histories and properties of pure cultures of cyanobacteria. *Journal of General Microbiology* **111**, 1-61 (1979).

**Citation:** Dr. Steven Wilhelm BG-11 Media. **protocols.io**

dx.doi.org/10.17504/protocols.io.h9zb976

**Published:** 02 Jun 2017

## Protocol

### Step 1.

Add 1 L Milli-Q H<sub>2</sub>O to a clean media bottle

### Step 2.

Add 1.5 g NaNO<sub>3</sub>



#### REAGENTS



Sodium nitrate [View](#) by [P212121](#)

### Step 3.

Add 0.04 g K<sub>2</sub>HPO<sub>4</sub>



#### REAGENTS



Potassium phosphate (dibasic) [View](#) by [P212121](#)

### Step 4.

Add 0.075 g MgSO<sub>4</sub>\*7H<sub>2</sub>O



#### REAGENTS



Magnesium sulfate heptahydrate by Contributed by users

### Step 5.

Add 0.036 g  $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$



#### REAGENTS



Calcium carbonate [View](#) by [P212121](#)

#### Step 6.

Add 0.006 g Citric acid



#### REAGENTS



Citric Acid [View](#) by [P212121](#)

#### Step 7.

Add 0.006 g Ferric ammonium citrate



#### REAGENTS



ammonium ferric sulfate by Contributed by users

#### Step 8.

Add 0.001 g EDTA (disodium salt)



#### REAGENTS



EDTA Disodium Salt [PubChem CID: 8759](#) by Contributed by users

#### Step 9.

Add 0.02 g  $\text{Na}_2\text{CO}_3$



#### REAGENTS



Sodium carbonate [View](#) by [P212121](#)

#### Step 10.

Add 1 mL Trace metal mix A5



#### PROTOCOL

#### . [BG-11 Trace metal mix A5](#)

CONTACT: [Steven Wilhelm](#)

#### Step 10.1.

Add 2.86 g  $\text{H}_3\text{BO}_3$



#### REAGENTS

Boric acid BP1681 by [Fisher Scientific](#)

#### Step 10.2.

Add 1.81 g  $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$



#### REAGENTS

Manganese chloride 7773-01-5 by [Fisher Scientific](#)

### Step 10.3.

Add 1 L Milli-Q  $\text{H}_2\text{O}$  to a clean media bottle

### Step 10.4.

Add 0.222 g  $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$



#### REAGENTS

✓ Zinc sulfate by Contributed by users

### Step 10.5.

Add 0.39 g  $\text{NaMoO}_4 \cdot 2\text{H}_2\text{O}$



#### REAGENTS

✓ Sodium molybdate dihydrate by Contributed by users

### Step 10.6.

Add 0.079 g  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$



#### REAGENTS

⦿ P212121 Copper Sulfate [View](#) by [P212121](#)

### Step 10.7.

Add 49.4 mg  $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$



#### REAGENTS

Cobalt (II) nitrate hexahydrate 10026-22-9 by [Fisher Scientific](#)

### Step 10.8.

Autoclave at  $121^\circ\text{C}$  for 20 m

### Step 11.

If making agar, add 10 g to media.

### Step 12.

Autoclave at  $121^\circ\text{C}$  for 20 min