BBM Media

Dr. Steven Wilhelm

Abstract

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

Modified from Bold 1949, Bischoff and Bold 1963

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Protocol

Step 1.

Add 936 mL Milli-Q H_2O to a clean media bottle

Macronutrients

Step 2.

Add 10 mL $NaNO_3$ (stock solution: 25.00 $g*L^{-1}$ dH_20)

REAGENTS
Sodium nitrate View by P212121

Step 3.

Add 10 mL $CaCl_2*2H_2O$ (stock solution: 2.50 $g*L^{-1}$ dH_20)

REAGENTS
Calcium Chloride by Contributed by users

Step 4.

Add 10 mL $MgSO_4*7H_2O$(stock solution: 7.50 $g*L^{-1}$ dH_20)

REAGENTS

Magnesium Sulfate View by P212121

Step 5.

Add 10 mL K_2HPO_4 (stock solution: 7.50 g*L^{-1} dH_20)

REAGENTS

Potassium phosphate (dibasic) View by P212121

Step 6.

Add 10 mL KH_2PO_4 (stock solution: 17.50 g*L^{-1} dH_20)

REAGENTS

Potassium phosphate (monobasic) View by P212121

Step 7.

Add 10 mL NaCl (stock solution: 2.50 g*L^{-1} dH_20)

REAGENTS

Sodium Chloride PubChem CID: 5234 by Contributed by users

Alkaline EDTA Solution

Step 8.

Add 1 mL Alkakine EDTA solution (stock solution: EDTA at 50.00 g*L^{-1} dH_20 and KOH at 31.00 g*L^{-1} dH_2O)

REAGENTS

Potassium hydroxide View by P212121

EDTA by Contributed by users

Acidified Iron Solution

Step 9.

Add 1 mL $FeSO_4$*$7H_2O$ (stock solution: 4.98 g*L^{-1} dH_20)

REAGENTS

Iron (II) sulfate 7782-63-0 by Fisher Scientific

Step 10.

Add 1 mL H_2SO_4

REAGENTS

Sulfuric acid A300C-212 by Fisher Scientific

Boron Solution

Step 11.

Add 1 mL H_3BO_3 (11.42 g*L^{-1} dH_2O)

READINGS
Boric acid BP1681 by Fisher Scientific

Trace Metal Solution

Step 12.

Add 1 mL $ZnSO_4$*$7H_2O$ (8.82 g*L^{-1} dH_2O)

READINGS
Zinc sulfate by Contributed by users

Step 13.

Add 1 mL $MnCl_2$*$4H_2O$ (1.44 g*L^{-1} dH_2O)

READINGS
Manganese chloride 7773-01-5 by Fisher Scientific

Step 14.

Add 1 mL MoO_3 (0.71 g*L^{-1} dH_2O)

READINGS
Molybdic acid 7782-91-4 by Fisher Scientific

Step 15.

Add 1 mL $CuSO_4$*$5H_2O$ (1.57 g*L^{-1} H_2O)

READINGS
Copper Sulfate View by P212121

Step 16.

Add 1 mL $Co(NO_3)_2$*$6H_2O$ (0.49 g*L^{-1} dH_2O)

READINGS
Cobalt (II) nitrate hexahydrate 10026-22-9 by Fisher Scientific

Step 17.

Autoclave at 121ºC for 20 min

Step 18.

Adjust the pH = 6