BG-11(-N) Medium Recipe

Directions

For 1 Liter Total Volume

Liquid Medium:

1. To approximately 900 mL of dH_2O add the first 8 components in the order specified while stirring continuously.
2. Bring the total volume to 1 Liter with dH_2O.
3. Cover and autoclave medium to sterilize.
4. Allow to cool then store at refrigerator temperature.

Agar Medium:

1. To approximately 400 mL of dH_2O add the first 8 components in the order specified while stirring continuously.
2. Bring the total volume to 500 mL with dH_2O.
3. In a separate container add 15 g of agar to 500 mL of dH_2O (final 1.5% w/v).
4. Cover and autoclave both solutions.
5. In a water bath allow both solutions to cool to 45-50 °C.
6. Add sterile Sodium Thiosulfate to the agar solution and mix well.
7. Combine both agar and liquid solutions, mix well.
   Note: *The agar can solidify quickly.*
8. Allow to cool then store at refrigerator temperature.

#	Component	Amount	Stock Solution Concentration	Final Concentration
1	K_2HPO_4 (Sigma P 3786)	10 mL/L	0.8 g/200 mL	0.22 mM
2	$MgSO_4 \cdot 7H_2O$ (Sigma 230391)	10 mL/L	1.5 g/200 mL	0.3 mM
3	$CaCl_2 \cdot 2H_2O$ (Sigma C 3881)	10 mL/L	0.72 g/200 mL	0.24 mM
4	Citric Acid$\cdot H_2O$ (Fisher A 104)	10 mL/L	0.12 g/200 mL	0.012 mM
5	Ferric Ammonium Citrate	10 mL/L	0.12 g/200 mL	0.02 mM
6	$Na_2EDTA \cdot 2H_2O$ (Sigma ED255)	10 mL/L	0.02 g/200 mL	0.002 mM
7	Na_2CO_3 (Baker 3604)	10 mL/L	0.4 g/200 mL	0.18 mM
8	BG-11 Trace Metals Solution	1 mL/L	*See recipe*	*See recipe*
9	Sodium Thiosulfate Pentahydrate (agar media only; sterile) (Baker 2946)	1 mL/L	49.6 g/200 mL	1 mM

BG-11 Trace Metals Solution Recipe

Directions

For 1 Liter Total Volume

1. To approximately 900 mL of dH_2O add the components in the order specified while stirring continuously.
2. Bring total volume to 1 Liter with dH_2O.
3. Store at refrigerator temperature.

#	Component	Amount	Stock Solution Concentration	Final Concentration
1	H_3BO_3 (Baker 0084)	2.86 g/L		46 mM
2	$MnCL_2 \cdot 4H_2O$ (Baker 2540)	1.81 g/L		9 mM
3	$ZnSO_4 \cdot 7H_2O$ (Sigma Z 0251)	0.22 g/L		0.77 mM
4	$Na_2MoO_4 \cdot 2H_2O$ (J.T. Baker 3764)	0.39 g/L		1.6 mM
5	$CuSO_4 \cdot 5H_2O$ (MCIB 3M11)	0.079 g/L		0.3 mM
6	$Co(NO_3)_2 \cdot 6H_2O$ (ACROS 10026-22-9)	49.4 mg/L		0.17 mM