

A+ Medium Recipe

Directions

For 1 L Total

Liquid media:

1. To approximately 900 mL of dH₂O add the first 8 components in the order specified while stirring continuously.
2. Bring total volume to 1 L with dH₂O.
3. Cover and autoclave medium.
4. Add filter sterilized A+ Trace Components.
5. Allow to cool then store at refrigerator temperature.

Agar media:

1. To approximately 390 mL of dH₂O add the first 8 components in the order specified while stirring continuously.
2. Bring total volume to 500 mL with dH₂O.
3. In a separate container add 15 g of agar to 500 mL of dH₂O (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 agar solution and mix well.
7. Add filter sterilized A+ Trace Components.
8. Combine both agar and liquid solutions, mix well. Note the agar can solidify quickly.
9. Allow to cool then store at refrigerator temperature.

#	Component	Amount	Stock Solution Concentration	Final Concentration
1	NaCl (Fisher S271-500)	18 g/L		0.308 M
2	MgSO ₄ ·7H ₂ O (Sigma 230391)	5 g/L		0.02 M
3	Na ₂ EDTA·2H ₂ O (Sigma ED255)	10 mL/L	0.3 g/100 mL	0.08 mM
4	KCl (Fisher P 217)	10 mL/L	6 g/100 mL	8.05 mM
5	CaCl ₂ ·2H ₂ O (Sigma C-3881)	10 mL/L	3.7 g/100 mL	2.52 mM
6	NaNO ₃ (Fisher BP360-500)	10 mL/L	10 g/100 mL	11.8 mM
7	KH ₂ PO ₄ (Sigma P 0662)	10 mL/L	0.5 g/100 mL	0.37 mM
8	Trizma Base pH 8.2	10 mL/L	10 g/100 mL	8.26 mM
9	A+ Trace Components (sterilize before adding)	10 mL/L		
10	Sodium Thiosulfate Pentahydrate (agar media only, sterile) (Baker 3946)	1 mL/L	24.819 g/100 mL	1 µM

