



Main sol. 929

NaCl	26.40	g
MgCl ₂ x 6 H ₂ O	5.70	g
MgSO ₄ x 7 H ₂ O	6.80	g
CaCl ₂ x 2 H ₂ O	1.50	g
KCl	0.66	g
KBr	0.09	g
Distilled water	1000.00	ml

1. Prepare the medium anaerobically under an atmosphere of N₂:CO₂ (8:2 vol:vol) and then add:

NaHCO ₃ (84 g/l autoclaved under a CO ₂ atmosphere)	30.00	ml/l
KH ₂ PO ₄	0.40	g/l
NH ₄ Cl	0.25	g/l
Na ₂ S ₂ O ₃	0.50	mM
Trace elements	1.00	ml/l
Selenite/tungstate solution	1.00	ml/l
Vitamin solution	1.00	ml/l
Vitamin B₁₂ solution 0.05 g/L	1.00	ml/l
Vitamin B₁ solution 0.1 g/L	1.00	ml/l
Acetate	5.00	mM
FeSO ₄	10.00	mM

2. The pH is adjusted to 6.8

3. To the medium add 5 mM acetate and 10 mM FeSO₄ (from a 1 M stock solution kept under nitrogen). When the iron is added to the medium a white flocculant precipitate may appear. In the initial stages of growth the precipitate turns orange/brown as the ferrous ions are oxidised to ferrihydrite. Cultivation may take 2-3 weeks at a distance of 30 cm from a 25 W light bulb.