

Main sol. J411

NaCl	19.000	g
MgCl ₂ x 6 H ₂ O	9.000	g
MgSO ₄ x 7 H ₂ O	0.150	g
CaCl ₂ x 2 H ₂ O	0.300	g
KCl	0.500	g
KH ₂ PO ₄	0.420	g
(NH ₄) ₂ SO ₄	0.100	g
NaBr	0.050	g
SrCl ₂ x 6 H ₂ O	0.020	g
Yeast extract (BD-Difco)	0.100	g
NaHCO ₃	2.500	g
Na ₂ SeO ₄	0.020	g
Poorly crystalline iron(III) oxide	100.000	mM
Trace vitamins	10.000	ml
Trace mineral solution	10.000	ml
L-Cysteine HCl x H ₂ O	0.044	g
FeCl ₂ x 4 H ₂ O	0.260	g

Add components except L-cysteine x HCl x H₂O and FeCl₂ x 4H₂O to distilled water, bring volume to 1.0 L and adjust pH to 7.0. Distribute the medium into appropriate culture vessels (e.g., 20 ml of the medium in 120 ml serum bottles) under a H₂-CO₂ (4:1, v/v) gas mixture, sparge with the same gas mixture for 10 - 15 min, seal with butyl rubber stoppers and autoclave. Separately autoclave concentrated (100- or 200-fold) L-cysteine x HCl x H₂O and FeCl₂ x 4H₂O solutions under a N₂ gas atmosphere. Prior to inoculation, add the sterile L-cysteine x HCl x H₂O and FeCl₂ x 4H₂O solutions. Pressurize the inoculated vessels to 100 kPa H₂-CO₂ (4:1, v/v) and cultivate without shaking.