

283. PYRODICTION MEDIUM

NaCl	13.85	g
MgSO ₄ x 7 H ₂ O	3.50	g
MgCl ₂ x 6 H ₂ O	2.75	g
KCl	0.33	g
NaBr	0.05	g
H ₃ BO ₃	15.00	mg
SrCl ₂ x 6 H ₂ O solution (0.1% w/v)	7.00	ml
(NH ₄) ₂ SO ₄	10.00	mg
Citric acid solution (0.1% w/v)	5.00	ml
KI solution (0.01% w/v)	0.50	ml
CaCl ₂ x 2 H ₂ O	0.75	g
KH ₂ PO ₄	0.50	g
NiCl ₂ x 6 H ₂ O solution (0.1% w/v)	2.00	ml
Trace element solution (see medium 141)	10.00	ml
Sulfur, powdered	30.00	g
Na-resazurin solution (0.1% w/v)	0.50	ml
Yeast extract (OXOID)	2.00	g
Na ₂ S x 9 H ₂ O	0.50	g
Distilled water	1000.00	ml

Prepare the medium without yeast extract and sodium sulfide, adjust pH to 5.0 - 5.5 with 10 N sulfuric acid, then sparge medium with 80% H₂ and 20% CO₂ gas mixture for 30 – 45 min to make it anoxic. Dispense medium under 80% H₂ and CO₂ gas atmosphere into anoxic Hungate-type tubes or serum vials, thereby taking care to transfer also the necessary amount of sulfur. For sterilization of medium heat vessels for at least 1 hour to 90 – 100°C on each of 3 successive days. Do not autoclave! Complete the medium by adding yeast extract and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas atmosphere. Adjust pH of complete medium to 5.5, if necessary. After inoculation pressurize the vessels to 200 - 300 kPa overpressure with sterile 80% H₂ and 20% CO₂ gas mixture.

For [DSM 2709](#) reduce amount of yeast extract to 0.20 g/l.

For [DSM 6158](#) reduce amount of yeast extract to 0.50 g/l and omit citric acid.