

960: PELOTOMACULUM MEDIUM

This recipe contains strain-specific modifications for *Oligosphaera ethanolica* DSM 24202 *

Final pH: 7.0

Final volume: 1002 ml

| | | |
|----------------------------------------|-----------------|--------------|
| KH ₂ PO ₄ | 0.14 | g |
| MgCl ₂ x 6 H ₂ O | 0.20 | g |
| CaCl ₂ x 2 H ₂ O | 0.15 | g |
| NH ₄ Cl | 0.54 | g |
| Trace element solution | 1.00 | ml |
| Sodium resazurin (0.1% w/v) | 0.50 | ml |
| Na ₂ CO ₃ | 1.50 | g |
| Na pyruvate | 2.20 | g |
| Yeast extract (OXOID) | 0.10 | g |
| Wolin's vitamin solution (10x) | 1.00 | ml |
| L-Cysteine HCl x H ₂ O | 0.30 | g |
| Na ₂ S x 9 H ₂ O | 0.30 | g |
| D-Glucose | 0.18 | g |
| Distilled water | 1000.00 | ml |

1. Dissolve ingredients (except carbonate, pyruvate, yeast extract, vitamins, and reducing agents) and sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic. Dispense medium under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. Add pyruvate, yeast extract, vitamins, cysteine, and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas and carbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas atmosphere. Stock solutions of vitamins and pyruvate should be sterilized by filtration. The pH of the complete medium should be 7.0.

2. Note: Use 10% (v/v) as inoculum.

* Omit yeast extract and replace pyruvate with 0.18 g/l D-glucose added from an anoxic stock solution sterilized by filtration. Use 10% (v/v) as inoculum.

Trace element solution (from medium 318)

| | | |
|----------------------------------------|-------|---|
| Nitrilotriacetic acid (NTA) | 12.80 | g |
| FeCl ₂ x 4 H ₂ O | 1.00 | g |
| MnCl ₂ x 4 H ₂ O | 0.10 | g |
| CoCl ₂ x 6 H ₂ O | 0.03 | g |
| CaCl ₂ x 2 H ₂ O | 0.10 | g |
| ZnCl ₂ | 0.10 | g |
| CuCl ₂ | 0.02 | g |
| H ₃ BO ₃ | 0.01 | g |

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| | | |
|--------------------------------------------------------|---------|----|
| $\text{Na}_2\text{MoO}_4 \times 2 \text{ H}_2\text{O}$ | 0.03 | g |
| $\text{NiCl}_2 \times 6 \text{ H}_2\text{O}$ | 0.10 | g |
| NaCl | 1.00 | g |
| $\text{Na}_2\text{SeO}_3 \times 5 \text{ H}_2\text{O}$ | 0.03 | g |
| $\text{Na}_2\text{WO}_4 \times 2 \text{ H}_2\text{O}$ | 0.04 | g |
| Distilled water | 1000.00 | ml |

First dissolve NTA in 200 ml of distilled water and adjust pH to 6.5 with KOH, then dissolve mineral salts. Finally adjust pH to 6.5 with KOH and make up to 1000.00 ml.

Wolin's vitamin solution (10x) (from medium 120)

| | | |
|----------------------------|---------|----|
| Biotin | 20.00 | mg |
| Folic acid | 20.00 | mg |
| Pyridoxine hydrochloride | 100.00 | mg |
| Thiamine HCl | 50.00 | mg |
| Riboflavin | 50.00 | mg |
| Nicotinic acid | 50.00 | mg |
| Calcium D-(+)-pantothenate | 50.00 | mg |
| Vitamin B ₁₂ | 1.00 | mg |
| p-Aminobenzoic acid | 50.00 | mg |
| (DL)-alpha-Lipoic acid | 50.00 | mg |
| Distilled water | 1000.00 | ml |