

1721: MMJHS MEDIUM

This recipe contains strain-specific modifications for *Hydrogenimonas urashimensis* DSM 111344 *

Final pH: * 5.9

Final volume: 1000 ml

NaNO ₃	1.00	g
NaHCO ₃	1.00	g
Na ₂ S ₂ O ₃ x 5 H ₂ O	1.00	g
Sulfur (powdered)	10.00	g
Synthetic seawater (MJ)	1000.00	ml

1. Prepare the medium under an atmosphere of H₂/CO₂ (80:20) without adding NaNO₃, Na₂S₂O₃ x 5 H₂O and NaHCO₃ in serum bottles and seal the serum tubes with butyl rubber stoppers. Steam medium for 3 hours on each of 3 successive days. To the sterile medium add, from filter sterilised stock solutions, NaNO₃, Na₂S₂O₃ x 5 H₂O and NaHCO₃.

2. Increase the 80% H₂ + 20% CO₂ gas phase pressure to 0.3 MPa.

3. Adjust pH strain-specifically.

* Adjust pH of final medium to 5.9.

Synthetic seawater

NaCl	25.00	g
K ₂ HPO ₄	0.14	g
CaCl ₂ x 2 H ₂ O	0.70	g
NH ₄ Cl	0.25	g
MgSO ₄ x 7 H ₂ O	3.40	g
MgCl ₂ x 6 H ₂ O	4.20	g
KCl	0.50	g
Trace mineral solution	10.00	ml
Distilled water	1000.00	ml

Trace mineral solution

Nitrilotriacetic acid	1.500	g
MgSO ₄ x 7 H ₂ O	3.000	g
MnSO ₄ x n H ₂ O	0.500	g
NaCl	1.000	g
FeSO ₄ x 7 H ₂ O	0.100	g
CoSO ₄ x 7 H ₂ O	0.180	g
CaCl ₂ x 2 H ₂ O	0.100	g



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ZnSO ₄ x 7 H ₂ O	0.180	g
CuSO ₄ x 5 H ₂ O	0.010	g
AlK(SO ₄) ₂	2.000	mg
H ₃ BO ₃	0.010	g
Na ₂ WO ₄ x 2 H ₂ O	0.100	g
NiCl ₂ x 6 H ₂ O	0.025	g
Distilled water	1000.000	ml
Na ₂ MoO ₄ x 2 H ₂ O	0.010	g
Na ₂ SeO ₃ x 5 H ₂ O	0.050	g

First dissolve nitrilotriacetic acid and adjust pH to 6.5 with KOH, then add minerals. Final pH 7.0 (with KOH).