641: DESULFOVIBRIO (MV) MEDIUM

This recipe contains strain-specific modifications for *Hydrogenispora ethanolica* DSM 25471 *

Final pH: 7.0 - 7.2
Final volume: 1003 ml

NH_4Cl	1.00	g
Na_2SO_4	2.00	g
$Na_2S_2O_3$ x 5 H_2O	1.00	g
$MgSO_4$ x 7 H_2O	1.00	g
$CaCl_2$ x 2 H_2O	0.10	g
KH_2PO_4	0.50	g
Trace element solution SL-10	1.00	ml
Selenite-tungstate solution	1.00	ml
Yeast extract	1.00	g
Sodium resazurin (0.1% w/v)	0.50	ml
Na_2CO_3	1.00	g
~~Na-DL-lactate~~	~~2.50~~	~~g~~
Wolin's vitamin solution (10x)	1.00	ml
Na_2S x 9 H_2O	0.10	g
D-Glucose	2.00	g
Distilled water	1000.00	ml

1. Dissolve ingredients (except carbonate, vitamins, lactate and sulfide), sparge medium with 100% N_2 gas for 30 - 45 min to make it anoxic, then dispense under same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclave. After autoclaving complete the medium by adding vitamins (sterilized by filtration), lactate and sulfide from sterile anoxic stock solutions prepared under 100% N_2 gas and carbonate from a sterile anoxic stock solution prepared under 80% N_2 and 20% CO_2 gas atmosphere. Adjust pH of the complete medium to 7.0 - 7.2, if necessary.

2. Note: Prior to inoculation 10-20 mg/l sodium dithionite (added from a 5% w/v solution freshly prepared under N_2 and filter-sterilized) can be added to the medium to stimulate growth at the beginning.

* Replace lactate with 2.0 g/l D-glucose added to the autoclaved medium from a sterile anoxic stock solution.

Trace element solution SL-10 (from medium 320)

HCl (25%)	10.00	ml
$FeCl_2$ x 4 H_2O	1.50	g
$ZnCl_2$	70.00	mg
$MnCl_2$ x 4 H_2O	100.00	mg
H_3BO_3	6.00	mg

$CoCl_2$ x 6 H_2O	190.00	mg
$CuCl_2$ x 2 H_2O	2.00	mg
$NiCl_2$ x 6 H_2O	24.00	mg
Na_2MoO_4 x 2 H_2O	36.00	mg
Distilled water	990.00	ml

First dissolve $FeCl_2$ in the HCl, then dilute in water, add and dissolve the other salts. Finally make up to 1000.00 ml.

Selenite-tungstate solution (from medium 385)

NaOH	0.50	g
Na_2SeO_3 x 5 H_2O	3.00	mg
Na_2WO_4 x 2 H_2O	4.00	mg
Distilled water	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