

## **ATCC Medium: 2108 *Desulfovibrio aespoensis* Medium**

### **Solution A**

Na <sub>2</sub> SO <sub>4</sub> .....	3.0 g
KH <sub>2</sub> PO <sub>4</sub> .....	0.2 g
NH <sub>4</sub> Cl.....	0.3 g
NaCl.....	7.0 g
MgCl <sub>2</sub> x 6H <sub>2</sub> O.....	1.3 g
KCl.....	0.5 g
CaCl <sub>2</sub> x 2H <sub>2</sub> O .....	0.15 g
Resazurin.....	1.0 mg
DI Water.....	870.0 ml

Boil for a few minutes, gas with 80% N<sub>2</sub>, 20% CO<sub>2</sub> to reduce the pH to under 6.0. Autoclave at 121°C.

### **Solution B**

Trace Element Solution SL-10 (see below).....	1.0 ml
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### **Solution C**

NaHCO <sub>3</sub> .....	5.0 g
DI Water.....	100.0 ml

Filter-sterilize and flush with gas to remove dissolved oxygen.

### **Solution D**

Sodium lactate (60% solution).....	4.2 ml
DI Water.....	10.0 ml

Autoclave under nitrogen at 121°C.

### **Solution E**

Seven Vitamin Solution (see below).....	1.0 ml
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### **Solution F**

Na <sub>2</sub> S x 9H <sub>2</sub> O.....	0.4 g
DI Water.....	10.0 ml

Autoclave under nitrogen at 121°C.

### **Solution G**

Selenate/Tungstate Solution (see below).....	2.0 ml
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### **Complete medium**

Add solutions B-G to the sterile, cooled solution A in the sequence indicated. Distribute the complete medium under N<sub>2</sub>, CO<sub>2</sub> gas into appropriate vessels. The final pH is 7.3-7.5. (Upon request) Addition of 10-20 mg sodium dithionite per liter (e.g. from 5% solution, freshly prepared under N<sub>2</sub> and filter-sterilized) may stimulate growth at the beginning. For transfers, use 5-10% inoculum.

### **Trace Elements Solution SL-10**

HCl (25%).....	10.0 ml
FeCl <sub>2</sub> x 4H <sub>2</sub> O.....	1.5 g
ZnCl <sub>2</sub> .....	70.0 mg
MnCl <sub>2</sub> x 4H <sub>2</sub> O.....	100.0 mg
H <sub>3</sub> BO <sub>3</sub> .....	6.0 mg
CoCl <sub>2</sub> x 6H <sub>2</sub> O.....	190.0 mg
CuCl <sub>2</sub> x 2H <sub>2</sub> O.....	2.0 mg
NiCl <sub>2</sub> x 6H <sub>2</sub> O.....	24.0 mg
Na <sub>2</sub> MoO <sub>4</sub> x 2H <sub>2</sub> O.....	36.0 mg
DI Water.....	990.0 ml

Dissolve FeCl<sub>2</sub> in the HCl, dilute with water, add and dissolve the other salts; adjust pH to 6.0 with NaOH, and fill to 1.0 L with distilled water.

### **Seven Vitamin Solution**

Vitamin B12.....	100.0 mg
p-Aminobenzoic acid.....	80.0 mg
Biotin.....	20.0 mg
Nicotinic acid.....	200.0 mg
Calcium-pantothenate.....	100.0 mg
Pyridoxine HCl.....	300.0 mg
Thiamine hydrochloride-dihydrate.....	200.0 mg
DI Water.....	1000.0 ml

Filter-sterilize and gas with nitrogen.

### **Selenate/Tungstate Solution**

NaOH.....	0.5 g
Na <sub>2</sub> SeO <sub>4</sub> x 5H <sub>2</sub> O.....	3.0 mg
Na <sub>2</sub> WO <sub>4</sub> x 2H <sub>2</sub> O.....	4.0 mg
DI Water.....	1000.0 ml

Autoclave under nitrogen at 121°C.