383. DESULFOBACTERIUM MEDIUM

Solution A:		
Na_2SO_4	3.00	g
KH_2PO_4	0.20	g
NH_4Cl	0.30	g
NaCl	21.00	g
$MgCl_2$ x 6 H_2O	3.00	g
KCl	0.50	g
$CaCl_2$ x 2 H_2O	0.15	g
Selenite-tungstate solution (see medium 385)	1.00	ml
Na-resazurin solution (0.1% w/v)	0.50	ml
Distilled water	930.00	ml
Solution B:		
Trace element solution SL-10 (see medium 320)	1.00	ml
Solution C:		
$NaHCO_3$	2.50	g
Distilled water	50.00	ml
Solution D:		
Substrate (see below)		
Solution E:		
Vitamin solution (see medium 141)	10.00	ml
Solution F:		
Na_2S x 9 H_2O	0.40	g
Distilled water	10.00	ml

Solution A is sparged with 80% N_2 and 20% CO_2 gas mixture to reach a pH below 6 (at least 30 min), then distributed in anoxic cultivation vials and autoclaved under the same gas atmosphere. *Solutions B* and *F* are autoclaved separately under 100% N_2 gas. *Solution C* is autoclaved under 80% N_2 and 20% CO_2 gas atmosphere. *Solutions D* and *E* are prepared under 100% N_2 gas and filter-sterilized. To complete the medium appropriate amounts of *solutions B* to *F* are added to the sterile *solution A* in the sequence as indicated. Final pH of the medium should be 7.0 – 7.2.

Note: Addition of 10 - 20 mg sodium dithionite per liter (e.g. from 5% (w/v) solution freshly prepared under N_2 and filter-sterilized) may stimulate growth of some strains at the beginning. For transfers use 5 - 10% inoculum. Incubate all strains in the dark.

Solution D* and additional instructions: *see next pages!

DSM 2056:

Na-butyrate	0.70	g
Na-caproate	0.30	g
Na-octanoate	0.15	g
Distilled water	10.00	ml

DSM 3383:

Dissolve 0.30 g of indole in 90 ml water by heating and shaking in a closed bottle under 100% N_2 gas atmosphere, autoclave, then add 7.00 ml of a sterile anoxic stock solution of NaCl (30% w/v) and 0.70 ml of a sterile anoxic stock solution of $MgCl_2$ x 6 H_2O (40% w/v). Store the indole-salt solution in the dark. Reheat and shake before use.

Add to sterile medium 30.00 ml/l of the indole-salt solution in the beginning, and 2 x 30.00 ml/l during growth.

DSM 3384:

Na-benzoate	0.40	g
Phenol	0.04	g
Distilled water	10.00	ml

DSM 4661:

Resorcinol	0.11	g
Distilled water	10.00	ml

During growth the culture is fed once with the same amount of resorcinol.

DSM 5091 and DSM 9788:

Malonic acid	2.00	g
Distilled water	10.00	ml

DSM 7044, DSM 7120, DSM 7467, DSM 12567, and DSM 13228:

Na-benzoate	0.40	g
Yeast extract	0.10	g
Distilled water	10.00	ml

Supplement medium with 1.00 ml/l seven vitamins solution (see medium 503). Sterilize benzoate and yeast extract separately by filtration and add to the autoclaved medium from anoxic stock solutions.

DSM 8540:

Na-4-hydroxybenzoate	0.30	g
Distilled water	10.00	ml

Continued next page

DSM 8541, DSM 10085 and DSM 16918:

Na-pyruvate	2.50	g
Distilled water	10.00	ml

Sterilize by filtration!

DSM 9705:

Na-glycolate	1.00	g
Distilled water	10.00	ml

Sterilize by filtration!

DSM 12861 and DSM 12883:

Valeric acid	1.00	g
Distilled water	10.00	ml

DSM 12888:

Na-butyrate	1.10	g
Caproic acid	1.10	g
Distilled water	10.00	ml

DSM 13036:

Betaine	1.00	g
Distilled water	10.00	ml

DSM 14454:

Naphthalene	0.40	g
Heptamethylnonane	20.00	ml

Alternatively:

Na-pyruvate	1.10	g
Distilled water	10.00	ml

DSM 15576 and DSM 16219:

Na-caprylate	1.00	g
Distilled water	10.00	ml

Supplement medium with 1.00 ml/l seven vitamins solution (see medium 503) added to the autoclaved medium from an anoxic stock solution sterilized by filtration.

DSM 17291:

Casamino acids (BD BBL)	3.00	g
Distilled water	20.00	ml

Continued next page

DSM 17477:

Sodium glutamate x H_2O	1.90	g
Yeast extract	1.00	g
Distilled water	20.00	ml

DSM 28890:

Sodium formate	0.68	g
Yeast extract	0.50	g
Distilled water	20.00	ml

DSM 100305 and DSM 105015:

Sodium pyruvate	2.20	g
Yeast extract	0.10	g
Distilled water	20.00	ml