Microorganisms



385. DESULFOBACTERIUM CATECHOLICUM MEDIUM

Solution A:		
Na ₂ SO ₄	3.00	g
KH ₂ PO ₄	0.20	g
NH_4CI	0.30	g
NaCl	7.00	g
$MgCl_2 \times 6 H_2O$	1.30	g
KCI	0.50	g
CaCl ₂ x 2 H ₂ O	0.15	g
Selenite-tungstate solution (see below)	1.00	ml
Na-resazurin solution (0.1% w/v)	0.50	ml
Distilled water	870.00	ml
Solution B:		
Trace element solution SL-10 (see medium 320)	1.00	ml
Solution C:		
NaHCO ₃	2.50	g
Distilled water	100.00	ml
Solution D:		
Na-benzoate	0.40	g
Distilled water	10.00	ml
Solution E:		
Pyrocatechol	0.06	g
1 N HCI	0.06	ml
Distilled water	10.00	ml
Solution F:		
Vitamin solution (see medium 141)	10.00	ml
Solution G:		
$Na_2S \times 9 H_2O$	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 under the same gas atmosphere into anoxic Hungate-type tubes or serum vials and autoclaved. Solutions B and G are autoclaved separately under 100% N_2 gas.

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Solution C is autoclaved under 80% N_2 and 20% CO_2 gas atmosphere. Solutions D, E and E are prepared under 100% N_2 gas and sterilized by filtration. The pyrocatechol stock solution has to be prepared always freshly prior to use. To complete the medium appropriate amounts of the solutions E to E0 are added to the sterile solution E1 in the sequence as indicated. Final pH of the medium should be at 6.9 - 7.1.

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 10 - 20% inoculum.

Selenite-tungstate solution:

NaOH	0.5	g
Na ₂ SeO ₃ x 5 H ₂ O	3.0	mg
$Na_2WO_4 \times 2 H_2O$	4.0	mg
Distilled water	1000.0	ml