

194a. DESULFOTOMACULUM OX39 MEDIUM (XYLENE)

Solution A:

Na ₂ SO ₄	1.40	g
KH ₂ PO ₄	0.20	g
NH ₄ Cl	0.30	g
NaCl	1.00	g
MgCl ₂ x 6 H ₂ O	0.40	g
KCl	0.50	g
CaCl ₂ x 2 H ₂ O	0.15	g
Selenite-tungstate solution (see medium 385)	1.00	ml
Na-resazurin solution (0.1% w/v)	0.50	ml
Distilled water	920.00	ml

Solution B:

Trace element solution SL-10 (see medium 320)	1.00	ml
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Solution C:

NaHCO ₃	5.00	g
Distilled water	50.00	ml

Solution D:

m-Xylene	0.30	ml
2,2,4,4,6,8,8-Heptamethylnonane	20.00	ml

Solution E:

Vitamin solution (see medium 503)	1.00	ml
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Solution F:

FeSO ₄ x 7 H ₂ O	0.80	g
0.2 N H ₂ SO ₄	10.00	ml

Solution G:

Na ₂ S x 9 H ₂ O	0.40	g
Distilled water	10.00	ml

Solution A is sparged with 80% N₂ and 20% CO₂ gas mixture to reach a pH below 6 (at least 30 min), then distributed under the same gas atmosphere in anoxic serum vials (e.g., 50 ml medium in 100 ml serum bottles) and autoclaved. *Solutions B, D* and *G* are autoclaved separately under 100% N₂ gas. *Solution C* is autoclaved under 80% N₂ and 20% CO₂ gas atmosphere.

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Solutions E and F are prepared under 100% N₂ gas atmosphere and sterilized by filtration. *Solutions B to G* are added to the sterile, cooled *solution A* in appropriate amounts in the sequence as indicated. Final pH of the medium should be 7.2 - 7.4.

Note: For transfers use 5 - 10% (v/v) inoculum. Incubate tubes in a slanted position.