

293: PROPIONIGENIUM MODESTUM MEDIUM (MARINE)

KH ₂ PO ₄	0.20	g
NH ₄ Cl	0.25	g
NaCl	20.00	g
MgCl ₂ x 6 H ₂ O	3.00	g
KCl	0.50	g
CaCl ₂ x 2 H ₂ O	0.15	g
Trace element solution SL-10	1.00	ml
Sodium resazurin (0.1% w/v)	0.50	ml
Na ₂ CO ₃	1.25	g
Disodium succinate	3.25	g
Na ₂ S x 9 H ₂ O	0.36	g
Distilled water	1000.00	ml

1. Dissolve ingredients except carbonate, succinate and sulfide, then sparge medium with 80% N₂ and 20% CO₂ gas mixture for 30 - 45 min to make it anoxic. Dispense medium under the same gas atmosphere into anoxic Hungate-type tubes and autoclave. Add succinate (sterilized by filtration) and sulfide from sterile anoxic stock solutions prepared under 100% N₂ gas and carbonate from a sterile anoxic stock solution prepared under 80% N₂ and 20% CO₂ gas mixture. Prior to use adjust pH of complete medium to 7.2 - 7.5.

2. Note: Dispense medium into anoxic Hungate-type tubes or serum vials only to 30% of their volume to allow a large head space.

For [DSM 2376](#): Supplement medium with 0.10% yeast extract (separately sterilized).

For [DSM 2377](#), [DSM 2378](#): Replace Na₂-succinate with 0.68 g/l of gallic acid.

For [DSM 2380](#): Replace Na₂-succinate with 0.90 g/l of 2,3-butanediol.

For [DSM 2382](#): Replace Na₂-succinate with 2.00 g/l of sodium L-tartrate.

For [DSM 2394](#): Replace Na₂-succinate with 1.00 g/l of polyethylene glycol (molecular weight 106 - 20000).

For [DSM 3247](#): Replace Na₂-succinate with 1.00 g/l acetoin.

For [DSM 6831](#): Supplement medium with 1.00 ml/l of a Wolin's vitamin solution 10x (see medium 120) and replace Na₂-succinate with 1.00 g/l of quinic acid added from a neutralized anoxic stock solution.

For [DSM 105538](#): Replace Na₂-succinate with 2.00 g/l of D-glucose and supplement medium with 1.00 g/l yeast extract and 1.00 ml/l of a Wolin's vitamin solution 10x (see medium 120) added from sterile anoxic stock solutions.

Trace element solution SL-10 (from medium 320)

HCl (25%)	10.00	ml
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FeCl ₂ x 4 H ₂ O	1.50	g
ZnCl ₂	70.00	mg
MnCl ₂ x 4 H ₂ O	100.00	mg
H ₃ BO ₃	6.00	mg
CoCl ₂ x 6 H ₂ O	190.00	mg
CuCl ₂ x 2 H ₂ O	2.00	mg
NiCl ₂ x 6 H ₂ O	24.00	mg
Na ₂ MoO ₄ x 2 H ₂ O	36.00	mg
Distilled water	990.00	ml

First dissolve FeCl₂ in the HCl, then dilute in water, add and dissolve the other salts. Finally make up to 1000.00 ml.