

1105. NITRILIRUPTOR ALKALIPHILUS MEDIUM

Basic mineral medium, pH 10, 0.6M Na⁺:

Na ₂ CO ₃	22.0	g
NaHCO ₃	8.0	g
NaCl	6.0	g
K ₂ HPO ₄	0.5	g
H ₂ O dest.	1000.0	ml

Dissolve in this order in 1L preferably MilliQ water. Sterilize in closed bottles at 120°C 20 min. After cooling, usually there will be some precipitate on the bottom. That's why it is handy to have another empty 1L bottle to decant clear top solution into it.

After sterilization add from concentrated steril stock solutions:

- 1) 1 ml Trace metals solution
- 2) 1 ml 20% MgSO₄ x 7H₂O solution
- 3) 10 µl 2M Na₂S₂O₃ x 5H₂O solution pH 10.0
- 4) 1 ml 0.01 % Vitamin B₁₂ solution
- 5) 10 ml of 1M Isobutyroamide (8.7 g in 100 ml H₂O dest) solution

solution 1, 2 and 3 you can autoclave

solution 4 and 5 you have to filter-sterilize

Trace metals solution (Pfennig & Lippert, 1966):

EDTA (Trilon B)	5.00	g
FeSO ₄ x 7 H ₂ O	2.00	g
ZnSO ₄	0.10	g
MnCl ₂	0.03	g
H ₃ BO ₃	0.30	g
CoCl ₂ x 6 H ₂ O	0.20	g
CuCl ₂	0.01	g
NiCl ₂ x 2 H ₂ O	0.02	g
Na ₂ MoO ₄ x 2 H ₂ O or NH ₄ MoO ₄	0.02	g
H ₂ O dest	1000.00	ml

pH final 3-4 by HCl

Sodium thiosulfate solution (available):

50% solution of Na₂S₂O₃ (Fluka), pH 9-10 >> filter sterilize or 110°C 20 min