



Feb 25, 2021

BBM Medium

Lutz Becks¹¹xxx

1 Works for me

This document is published without a DOI.

Lutz Becks

SUBMIT TO PLOS ONE

ABSTRACT

BBM Medium

DOCUMENT CITATION

Lutz Becks 2021. BBM Medium . protocols.io
<https://protocols.io/view/bbm-medium-bssgnebww>



LICENSE

————— This is an open access document distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

CREATED

Feb 25, 2021

LAST MODIFIED

Feb 25, 2021

DOCUMENT INTEGER ID

47656

ABSTRACT

BBM Medium

Bold's Basal Medium (BBM - Becks Lab Remix) Feb. 2019

i) Preparation of MBBM stock solutions

This protocol is a modified version of the original recipe of Bold's Basal Medium, optimized for growing *Chlorella variabilis* in chemostat systems. The trace metal solutions are prepared in separate bottles and in the case of MoO₃ also in less concentrated stock solutions to shorten the time to dissolve the salts. Note that stock solutions 8 and 10.3 will still require a few days to fully dissolve under constant mixing. Store stock solutions 1-9 in the fridge, and stock solution 10 in the cabinet under the work bench. Do not autoclave stock solutions!

Stock solution #1) 1000 ml MilliQ + 15.74 g NH₄ClStock solution #2) 1000 ml MilliQ + 2.50 g CaCl₂*2H₂OStock solution #3) 1000 ml MilliQ + 7.50 g MgSO₄*7H₂OStock solution #4) 1000 ml MilliQ + 7.50 g K₂HPO₄Stock solution #5) 1000 ml MilliQ + 17.50 g KH₂PO₄

Stock solution #6) 1000 ml MilliQ + 2.50 g NaCl

Stock solution #7) 1000 ml MilliQ + 50.00 g disodium EDTA + 31.00 g KOH

Stock solution #8) 999 ml MilliQ + 1 ml concentrated H₂SO₄ (if you use less concentrated acid, adopt the volumes accordingly, the final concentration in the stock solution should be 0.1% (v/v) H₂SO₄). Then add 4.98 g FeSO₄*7H₂O

Stock solution #9) 1000 ml MilliQ + 11.42 g H₃BO₃

Stock solution #10.1) 1000 ml MilliQ + 8.82 g ZnSO₄*7H₂O

Stock solution #10.2) 1000 ml MilliQ + 1.18 g MnCl₂*2H₂O

Stock solution #10.3) 1000 ml MilliQ + 0.36 g MoO₃

Stock solution #10.4) 1000 ml MilliQ + 1.57 g CuSO₄*5H₂O

Stock solution #10.5) 1000 ml MilliQ + 0.49 g Co(NO₃)*6H₂O

ii) Preparation of 1 l MBBM culture medium

- 1) Fill a clean 1 l Schott bottle with 925 ml MilliQ water
- 2) Add 10 ml of stock solutions 1,2,3,4,5,6 (stored in the fridge in the main lab)
- 3) Add 1 ml of stock solutions 7,8,9 (stored in the fridge in the main lab)
- 4) Add 2 ml of stock solutions 10.1, 10.2, 10.4, 10.5 (stored in the cabinet)
- 5) Add 4 ml of stock solution 10.3 (stored in the cabinet)

iii) Preparation of 2 l MBBM culture medium

- 1) Fill a clean 2 l Schott bottle with 1850 ml MilliQ water
- 2) Add 20 ml of stock solutions 1,2,3,4,5,6 (stored in the fridge in the main lab)
- 3) Add 2 ml of stock solutions 7,8,9 (stored in the fridge in the main lab)
- 4) Add 4 ml of stock solutions 10.1, 10.2, 10.4, 10.5 (stored in the cabinet)
- 5) Add 8 ml of stock solution 10.3 (stored in the cabinet)

iv) Preparation of 5 l MBBM culture medium

- 1) Fill a clean 5 l Schott bottle with 4625 ml MilliQ water
- 2) Add 50 ml of stock solutions 1,2,3,4,5,6 (stored in the fridge in the main lab)
- 3) Add 5 ml of stock solutions 7,8,9 (stored in the fridge in the main lab)
- 4) Add 10 ml of stock solutions 10.1, 10.2, 10.4, 10.5 (stored in the cabinet)
- 5) Add 20 ml of stock solution 10.3 (stored in the cabinet)

