



Modified K Medium

Medium for *Gambierdiscus* sp.

Reference: Litaker, R. W., Vandersea, M. W, Faust, M. A., Kibler, S. R., Chinain, M., Holmes, M. J., Holland, W. C. and Tester, P. A. (2009). Taxonomy of *Gambierdiscus* including four new species, *Gambierdiscus caribaeus*, *Gambierdiscus carolinianus*, *Gambierdiscus carpenter* and *Gambierdiscus ruetzleri* (Gonyaulacales, Dinophyceae). *Phycologia* 48(5), 344-390

Adapted from Table 2; Keller, M. D., Selvin, R. C., Claus, W. and Guillard, R. R. L. (1987). Media for the culture of oceanic ultraplankton. *J. Phycol.* 23, 633-638

STOCK SOLUTIONS	CONCENTRATION: g L ⁻¹ DEIONISED WATER (dH ₂ O)	VOLUME FOR MEDIA
1. NaNO ₃	150 g	1.0 mL
2. Na ₂ β-glyceroPO ₄	3.24 g	1.0 mL
3. H ₂ SeO ₃	1.29 mg	1.0 mL
4. Vitamins	<i>see recipe below</i>	5.0 mL
5. Mod K – Trace metal mix	<i>see recipe below</i>	1.0 mL

Store all stock solutions in the refrigerator.

Vitamins solution

Add constituents to 100 mL of dH₂O. Store solution in the dark. Remake solution after 3 months.

CONSTITUENT	CONCENTRATION: mg L ⁻¹ DEIONISED WATER (dH ₂ O)	QUANTITY FOR WORKING STOCK
Vitamin B ₁₂	100 mg	1.0 mL
Biotin	100 mg	1.0 mL
Thiamine HCl	<i>add reagent directly to stock</i>	20.0 mg

Mod K - Trace metal mix

Add each ingredient to 48.5 mL of dH₂O. Ensure the EDTA and NaOH are fully dissolved before adding the iron salt and metal stock solutions. The pH should be >9.

Trace metal mix only lasts 1-2 weeks. Filter sterilise and store at room temperature.

CONSTITUENT	CONCENTRATION: g L ⁻¹ DEIONISED WATER (dH ₂ O)	QUANTITY FOR WORKING STOCK
Na₂EDTA.2H₂O	<i>add reagent directly to stock</i>	1.75 g
NaOH	<i>add reagent directly to stock</i>	1 pellet
FeCl₃.6H₂O	<i>add reagent directly to stock</i>	0.158 g
MnCl₂.4H₂O	0.178 g	0.05 mL
ZnSO₄.7H₂O	2.2 g	0.5 mL
CoCl₂.6H₂O	1.0 g	0.5 mL
Na₂MoO₄.2H₂O	0.6 g	0.5 mL

1. To prepare modified K Medium (1 L)

- Aseptically add each of the stock solutions (1 – 5) in the stated quantities to 1 L of sterile seawater.
- Prepare media fresh (within a day or two of use) and never use media that contains precipitates. Do not refrigerate or freeze the media.
- This medium is now ready to be decanted aseptically into sterile culture flasks.

CONTACT US

t 1300 363 400
+61 3 9545 2176
e csiroenquiries@csiro.au
w www.csiro.au

For further information

Australian National Algae Culture Collection
w www.csiro.au/en/Research/Collections/ANACC

Ian Jameson
Director
t +61 3 6232 5117
e ian.jameson@csiro.au

**Australian National Algae
Supply Service**

Cathy Johnston
Manager
t +61 3 6232 5316
e cathy.johnston@csiro.au