

K-medium

(Keller D. K., Selvin R. C., Claus W., Guillard R. R. L., 1987. Media for the culture of oceanic ultraphytoplankton. *J Phycol.* 23: 633-638.)

Filter 1L of natural sea water with GF/F (0.45 μ m) and autoclave for 15 minutes at 120°C.

After cooling, add the following filter sterilized (0.2 μ m) components to complete the medium:

Minerals	Stock Solutions (g/L)	Quantity (mL Stock/L Media)	Molarity (mM)
NaNO ₃	150	0.5	0.8
NaH ₂ PO ₄ · 2H ₂ O	6.9	0.725	0.03
Trace Element Solution	See recipe below	1	-
Vitamins3 Mix	See recipe below	1	-
Na ₂ SeO ₃	0.002	1	0.00001

For solid medium use 7g/L of agarose. Sterilize the agarose separately in 550 ml of milliQ water. In this case the mineral solution is filled up to 400 ml.

Trace Element Solution:

Trace metals	Trace Element Solution (g/L)
Na ₂ -EDTA · 2H ₂ O	4.36
FeCl ₃ · 6H ₂ O	3.15
MnCl ₂ · 4H ₂ O	0.18
ZnSO ₄ · 7H ₂ O	0.022
CoCl ₂ · 6H ₂ O	0.01
Na ₂ MoO ₄ · 2H ₂ O	0.006

Vitamins 3 Mix:

Vitamins	Vitamins 3 mix (quantity/100mL)
Thiamine-HCl	10 mg
d-biotin*	100 μ L (from a stock of 5 mg in 10mL)
Vitamin B12	100 μ L (from a stock of 5 mg in 10mL)

*Dissolve first in 0.1 mL 2M NaOH. Then add 9.9 mL of mQ water.