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Microalgae fixation for FCM

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ABSTRACT

Protocol for fixing microalgae for later enumeration by flow cytometry.

PROTOCOL CITATION

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<https://protocols.io/view/microalgae-fixation-for-fcm-bskyncxw>

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47480

PARENT PROTOCOLS

In steps of

[Concentration and DNA extraction protocol for Micromonas spp.](#)[Micromonas cell culture HMW DNA extraction](#)

MATERIALS TEXT

Cryovials

50% glutaraldehyde

Fume hood

Microalgal cell culture for FCM enumeration

Liquid nitrogen

SAFETY WARNINGS



Ensure a fume hood is used when aliquoting glutaraldehyde.

Preparation

5m

1


Aliquot  **2 µl** of **50% glutaraldehyde** into each of 3 cryovials.



Use a fume hood for this step.

Sample fixation

25m

- 2 Add  **198 μ l** of microalgal cell culture sample to each of the 3 cryovials for a final concentration of **10^{-6} 0.5 % (v/v)**^{2m} gluteraldehyde.

- 3 Mix the sample with the gluteraldehyde by flicking the tube up to 15 times. 2m

- 4 Incubate tube at  **4 °C** in the dark for  **00:20:00** . 20m

- 5 Flash freeze the tube in liquid nitrogen.



Use appropriate protective clothing when handling liquid nitrogen.

- 6 Store at  **-80 °C** until ready for FCM.