Freshwater Diatoms

Note: The culturing conditions below are not necessarily the optimal growth conditions for each strain, as much variation is found between strains, and cultures are not always kept in optimal growth conditions at CCAP for practical reasons. There may be more info in the individual strain data on the website.

On receipt of culture: cultures should be subcultured into fresh sterile medium as described below, ideally within a few days of receipt. If the culture vessel is very full on receipt and subculturing cannot be done immediately, we advise transferring half of the culture to a sterile container to provide air space.

Culture Medium: DM

Lighting: Mix of cool and warm white fluorescent lighting; Slightly shaded

Light Cycle: 12h light : 12h dark (for faster growth try 16h:8h)

Temperature: 15 degrees C (for faster growth, grow at 20-25 degrees C)

Sub Interval: 2 weeks (may vary depending on environment)

Culture Vessel: Glass tubes containing approx. 9ml culture; or glass flasks.

Culture Method:

Liquid cultures:

Subculture by inoculating culture into fresh sterile medium in the ratio of 1:10, e.g. 5mls culture into no more than 50mls medium. If the culture is not in optimal condition or bacteria are obvious then 1:5 may be necessary. Particularly dense cultures can be added to slightly larger volumes of medium. Culture can be transferred by pouring or pipetting.

Agar/solid cultures:

Use a sterile loop to collect cells from the existing culture and draw the loop over the fresh agar being careful not to break the surface.

Use strict aseptic techniques throughout and if possible carry out all subculturing within a laminar flow cabinet (particularly for axenic strains).

ACDP Hazard Gp: 1 - Non pathogenic / non hazardous. Unlikely to cause human disease.