

## ***Emiliana huxleyi***

**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.

*Emiliana huxleyi* has different morphologies at different life stages, including motile flagellated cells, and there can be a mix of life stages in a culture at any given time.

Storing the cultures in natural daylight at room temperature should also be fine, providing they are kept out of direct sunlight.

**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. Cultures on agar do not need subculturing immediately, and any culture remaining on the slope after subculturing will continue to grow.

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

**Culture Medium:** *Emiliana* prefers low nutrient levels, we usually grow in diluted f/2 medium, either f/20 (f/2 diluted by 10), or f/10 (f/2 diluted by 5). If growth is poor, try standard f/2.

Media recipes can be found on our website: [www.ccap.ac.uk/index.php/media-recipes/](http://www.ccap.ac.uk/index.php/media-recipes/)

**Lighting:** Cool white, or cool/warm white mix, fluorescent tubes, intensity of 30-40  $\mu\text{mol m}^{-2} \text{s}^{-1}$

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

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

**Sub Interval:** Monthly (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.

**Use strict aseptic techniques throughout and if possible carry out all subculturing within a laminar flow cabinet.**