

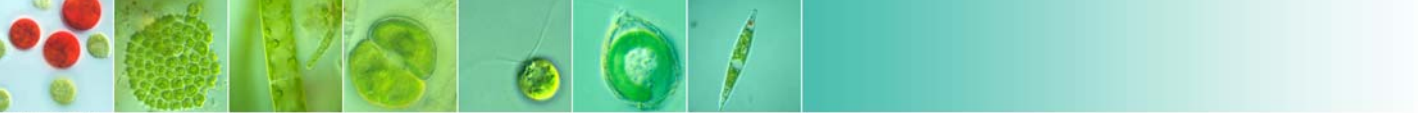


Phycomat

96-well twin-layer microalgal cultivation technology

don't waste your time
– benefit from effortless microalgal cultivation with the *Phycomat*

AlgeniQ_n



Exceeding one million species, microalgae represent an unlimited source of biological diversity.

The current status of the use of microalgae, however, does not reflect this potential, as only a small number of the known taxa are cultivated. Primarily, this relates to the extent of manual labour involved to maintain each strain in an active metabolic state by regular serial transfer of suspension or agar cultures. The problem is exacerbated when numerous microalgal strains need to be handled in parallel as in resource centres, personal collections or in high-throughput screening projects. Despite some recent progress in the cryopreservation of microalgae, serial transfer is often still the method of choice.

Now, Algenion introduces a novel system for the stable long-term cultivation of microalgae based on the revolutionary Twin-Layer Technology. In the *Phycomat*, microalgae are immobilised on an ultra-thin porous substrate represented by a 96-well filter plate. Subtending the filter plate, a second, fibrous layer provides the culture medium. The *Phycomat*, developed by Professor Melkonian and his research group at the University of Cologne (Protist 156, 239-251), allows the cultivation of a wide spectrum of microalgae in standard 96-well format. The *Phycomat* takes out the labour of microalgal cultivation by allowing a simultaneous exchange of culture medium for all 96 strains within minutes. A transfer of cultures may not be necessary for years. The *Phycomat* has been rigorously tested with respect to long-term sterile cultivation of microalgae and lack of cross-contamination. The 96-well format also favours high-throughput screening of microalgae.



The *Phycomat* is the most versatile and cost-saving system for parallel cultivation of microalgal strains currently available.

Design

A user friendly design provides for easy handling during every stage of microalgal cultivation. Heat-resistant materials assure sterility and reusability over many cycles of autoclaving.

3 Cover

The cover provides a tight seal to maintain sterility. Sterile aeration is provided through silicon foam inlays. High quality glass ensures homogenous illumination.



Inoculation with microalgae

The reusable inoculation cover was designed to prevent cross contamination during inoculation and transfer of cultures.

4

Exchange of culture medium

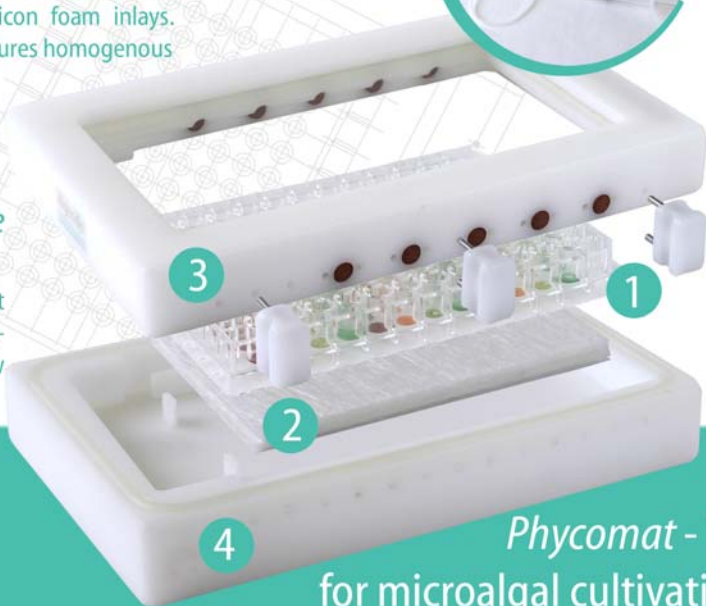
Standardised Luer ports help to keep the exchange of culture medium efficient, easy, and safe.



2

Storage for Culture Medium

A fibrous tissue stores sufficient culture medium for stable cultivation of microalgae for a few months.



Twin-Layer Technology Filter Plate

1

As a functional part of the Twin-Layer System, the filter plate provides the substrate for the immobilisation of microalgae. With a pore size of 0.22 μm , the membrane prevents passage of algal cells or contaminating bacteria, but allows a continuous supply of the immobilised microalgae with culture medium stored in the reservoir below.

Phycomat - The all-in-one solution
for microalgal cultivation.

scale up your stock cultures by an order of magnitude
take advantage of cultivation in the standard 96-well format
discover an indispensable tool for your screening projects

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