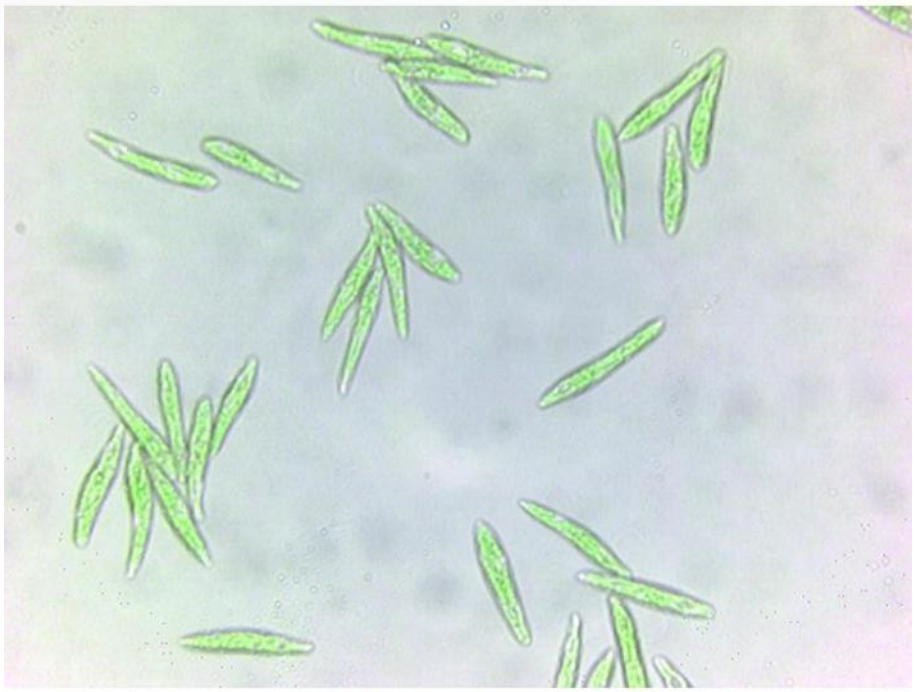
EFFECT OF MUTATIONS ON METABOLISM: AUTOTROPHY AND HETEROTROPHY

PRODUCT SHEET

Reference : MMAH



Cell metabolism

Cognitive objectives:
To compare the metabolism of a strain of Euglena and a euglenoid mutant without chloroplast to show the effect of mutations on cell metabolism and to understand the role of the genome.

Proposed activity:
Euglena is an algae that has the distinction of having a double autotrophic and heterotrophic metabolism. Placed under certain conditions, it is able to metabolise the lactic acid present in its culture medium and consequently to grow even in the absence of light.
The other strain is a euglenoid mutant that has lost its chloroplasts. This strain is therefore incapable of photosynthesising and will not grow in a purely mineral medium.

This kit lets you observe the two strains under the microscope and to visualise the presence or not of chloroplasts then to put the strains in culture in different media and conditions in order to compare their metabolism:

Composition for 20 pairs of students:

- 50ml of a suspension of Euglena
- 50ml of a mutant Euglena suspension without chloroplasts
- 400ml of mineral medium

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- 400ml of organic medium

Technical and educational instructions available on our website.

Conservation

Strains at room temperature, media at 4° C

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