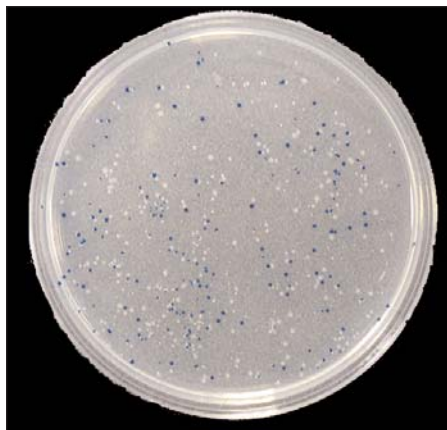


MolecuLab 120

Advanced Bioluminescent Bacterial Transformation: Blue/White screening



Results from MolecuLab 120

About Bacterial Bioluminescence

Many organisms have the ability to emit biologically produced light. Perhaps some of the most bizarre and fascinating of these are marine fish and squid, which have a variety of unique light organs. However, most luminescent marine animals do not produce bioluminescence themselves, but harbor bioluminescent bacteria in specialized light organs.

Unraveling DNA: Molecular Biology for the Laboratory
Winfrey, Rott, Wortman
Prentice Hall

In this advanced level exercise, your students will transform a complex mixture of recombinant DNA molecules into *E. coli*. After transformation, students will see a combination of blue, white, and bioluminescent colonies on an agar plate. This exercise fulfills requirements for AP Biology Laboratory #6.



This exercise requires three 45-50 minute class periods. This includes time for students to transform *E. coli*, plate onto agar, analyze transformants, and isolate bioluminescent colonies. Designed for six teams of students.

Because of the perishable nature of some components, we recommend you request kit delivery approximately 2 weeks prior to use.

Ordering Information:

MolecuLab™ 120	Replacement Biologicals 120
E1-1120\$75	E1-2220 (shaded in blue below)\$60

MolecuLab™ 120 Includes:

- *E. coli* strain DH5 α
- Recombinant DNA mixture
- LB/Amp/X-Gal agar plates
- LB agar plates
- Instructor control strains
- Sterile LB broth
- Sterile CaCl₂
- Sterile inoculating loops
- Cell spreaders
- Sterile culture tubes
- One CD containing student protocols and instructor's manual