Lab 4 Notebook V.1

1

[1]UCSC

Version 1

Oct 06, 2020

1 Works for me This document is published without a DOI.

UCSC BME 22L

Alyssa Ayala

DOCUMENT CITATION

2020. Lab 4 Notebook. **protocols.io**
https://protocols.io/view/lab-4-notebook-bk8fkztn

CREATED

Sep 10, 2020

LAST MODIFIED

Oct 06, 2020

DOCUMENT INTEGER ID

41959

Abstract

Prelab

1. Give an example of two different types of CRISPR associated enzymes. What are their different applications?
2. How does CRISPR benefit molecular biology? What is a relevant use? Use an article from https://pubmed.ncbi.nlm.nih.gov/ discussing a recent use of CRISPR. Give the DOI.
3. Investigate E coli str k-12 mG 1655 on blast and genome browser. Provide a screen grab of each search. What was an interesting observation you found from each reference?
4. Know your set up. State the protocol and step each is used in. Read: https://docs.google.com/document/d/1p36d2EGIeUUI0xMfrGBZzdN8VP9Tt74Y/edit?pli=1

- LB Agar, LB Broth, and LB Strep/Kan/Arab. What is the difference between the three? What is their function in the step used?
- Bacterial Transformation Buffer. Why is a transformation buffer necessary?
- What are the sequences of the template DNA and sgRNA?

Lab Results

Give a picture of the end culture plate and a description of what we are looking at. Be patient with this section, your bacteria may not grow at first. If you did not get results, give an possible sources of error that could explain why you did not get the intended results.

Post Lab

Write about half a page on a proposed real-life application of CRISPR of your design. Explain how you think it is possible and why it would be a good option.

Disclaimer:

The information provided on this document is intended for the educational purposes of the BME 22L laboratory course. It is worth noting that the information listed on this document is subject to change and is not finalized. Therefore, the information on this document should not be used outside of this course.