



Oct 21, 2020

Lab Notebook Template

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Works for me

This document is published without a DOI.

UCSC BME 22L



DOCUMENT CITATION

2020. Lab Notebook Template. **protocols.io**
<https://protocols.io/view/lab-notebook-template-bnnpmddn>



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CREATED

Oct 20, 2020

LAST MODIFIED

Oct 21, 2020

DOCUMENT INTEGER ID

43439

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GEL ELECTROPHORESIS 2 : 1 KB GEL-BASED ASSAY

OBJECTIVES

- To visualize a 1 kilobase DNA ladder using a 1% agarose/0.5X TBE gel using Bento Lab.
- Test DNA staining by Gelgreen when casted in the gel using different amounts of DNA
- Practice gel electrophoresis skills.
- Practice laboratory notebook entries.

METHODS

1. Casting a 1% agarose gel.

- Follow protocol "Agarose Gel Protocol" written by Dr. Akeson, with the following exceptions if any

2. Preparing the 1 kb DNA ladder samples. Samples are 0.5, 1.0, 2.0, 5.0 ug of NEB ladder. Combine as follows in cheap Eppendorf tubes.

ug DNA	ul NEB ladder	ul 6X loading buffer	water ul	total volume (uL)
0.5	1	2	9	12
1.0	2	2	8	12
2.0	4	2	6	12
5.0	10	2	0	12

3. Preparing the gel (See Dr. Akeson's gel protocol noted in 1 above)

4. Loading the sample

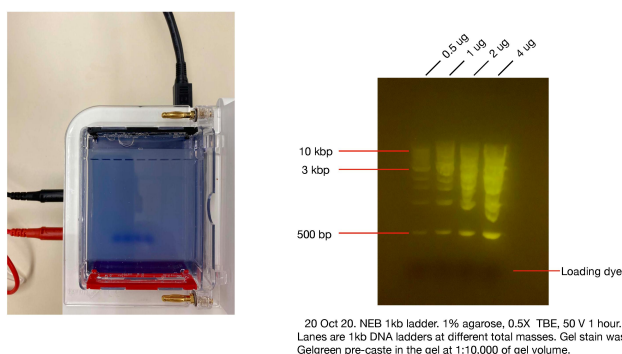
- Gel was placed on the Bento Box transilluminator taking care not to spill running buffer. Sample was loaded into lanes 3, 4, 5, and 6.

5. Running the gel.

- Standard Bento Lab protocol, i.e. 50V for one hour

RESULTS

1. Gel was visualized at 20 minutes. All lanes visible. 1.0 to 5.0 ug clearly overloaded.



CONCLUSION

- 0.5 ug lane was fine but not superb. Larger bands diffuse.
- Loading 1 ug or more DNA caused severe streaking due to lane overload

