Prepare 50x **T**ris-**a**cetate-**E**DTA (TAE) buffer

1. Introduction

Agarose gels are run using two types of electrophoresis buffers: Tris-acetate-EDTA (TAE) buffer or Tris-borate-EDTA (TBE) buffer. TAE buffer provides faster migration of linear DNA and better resolution of supercoiled DNA, and TBE has a stronger buffering capacity for longer or higher voltage electrophoresis runs.

2. Preparing TAE stock solution of 50x

Dissolve the following components in 600mL of deionized water in a beaker using a hot plate stirrer.

- 242g Tris base (FW = 121)
- 57.1mL glacial acetic acid
- 100mL 0.5M EDTA (pH 8)

Adjust the final volume to 1L with deionized water.

3. Preparing TAE working solution of 1x

To prepare 1L 1x working solution, mix 20mL of stock TAE with 980mL of deionized water.

4. References

- Bio Rad Laboratories, Inc. *Horizontal Electrophoresis*. Bulletin 6205. Accessed 24 October 2017.