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.

1. **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.

1. **Preparing TAE working solution of 1x**

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

1. **References**

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