

## Prepare 50x Tris-acetate-EDTA (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.