TAE Buffer (10X)

#GB11.0110 (1L 10X) | GB11.0510 (5L 10X)
(FOR RESEARCH ONLY)

Product: TAE Buffer (10X) is an aqueous solution of 400mM Tris, 200mM acetic acid, and 10mM EDTA, prepared with ultrapure water, and 0.2 µm filtered (**T**ris-**A**cetate-**E**DTA, 10x concentrated buffer). TAE is the most common buffer used for agarose gel electrophoresis in the analysis of DNA samples and is recommended for high resolution of large DNA fragments (>2kb) or supercoiled DNA, however, it can also be used for non-denaturating RNA agarose electrophoresis.

Applications: DNA Agarose Electrophoresis

Contents: #GB11.0110 contains 1L of 10X concentrated TAE Buffer
#GB11.0510 contains 5L of 10X concentrated TAE Buffer

Properties: High Resolution of larger DNA fragments (>2kb)

Storage: Store at room temperature and re-test after 2 years.

Prior to use:

TAE (10X) is prepared with ultrapure water and 0.2µm filtered, and is provided as a 10X concentrated aqueous solution. The working concentration is either 1X or 0.5X. Prepare 1L TAE Buffer (1X) by mixing 100ml of the 10X concentrated buffer with 900ml of ddH_2O. A 1X TAE buffer consists of 40mM Tris-acetate, 1mM EDTA at pH 8.3±0.1. Note that compared with other electrophoresis buffers, such as TBE or SGTB, TAE has a low ionic strength and low buffering capacity and may become exhausted during extended electrophoresis (>4h). The running buffer should therefore be replaced frequently.

Usage

Prepare 1X TAE the concentrate in pure water (see: prior to use). Prepare the agarose gel with 1X TAE. Fill the electrophoresis chambers with 1X TAE and put the gel casting tray into place. For optimal resolution, cover the gel with no more than 3-5mm of TAE. Apply samples and run the gel at constant voltage (5-10V/cm). Run the gel until the Bromophenol Blue tracking dye has run approximately 80% of the gel. Typically, running a minigel at 75-150V takes 1h-1.5h.