

## Product Information

### Tris Acetate-EDTA Buffer, 50× Concentrate

Catalog Number **SRE0033**  
Store at Room Temperature

Synonym: TAE Buffer

#### Product Description

Tris Acetate-EDTA (TAE) buffer is commonly used in the electrophoresis of nucleic acids in agarose and polyacrylamide gels. TAE buffer is recommended for resolution of RNA and DNA fragments larger than 1500 bp, for genomic DNA, and for large supercoiled DNA

This 50× TAE buffer stock solution contains 2 M Trizma® with 0.05M EDTA adjusted to pH 8.3 with acetic acid.

#### Precautions and Disclaimer

For manufacturing, processing, or repacking. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

#### Preparation Instructions

Preparation of 1× TAE working buffer:  
Dilute the 50× concentrated buffer 50-fold with ultrapure water ( $\geq 18$  M $\Omega$ ×cm resistivity at 25 °C).

**Notes:** If precipitation is present in the 50× buffer, warm the bottle to 37 °C and mix until completely dissolved prior to dilution.

It is recommended 1× working solutions be filtered through a 0.2  $\mu$ m filter before use.

1× working solutions can be used until the expiration date on packaging with storage at room temperature. If buffer becomes cloudy or discolored, discontinue use and discard.

#### Storage/Stability

Stable for two years from the date of manufacture when stored at room temperature. Do not use past expiration date printed on product label.

#### References

1. Ogden, R.C., and Adams, D.A., Electrophoresis in agarose and acrylamide gels. *Methods Enzymol.*, **152**, 61-87 (1987).
2. *Molecular Cloning: A Laboratory Manual*, 3rd ed., Sambrook, J., and Russell, D.W., CSHL Press, (Cold Spring Harbor, NY: 2001), pp. 5.8, 5.76, A1.16.
3. Loening, U.E., The fractionation of high molecular-weight ribonucleic acid by polyacrylamide-gel electrophoresis. *Biochem. J.*, **102**, 251-257 (1967).
4. Masters, D.B. et al., High sensitivity quantification of RNA from gels and autoradiograms with affordable optical scanning. *Biotechniques*, **12(6)**, 902-906, 908-911 (1992).
5. Stellwagen, E., and Stellwagen, N.C., The free solution mobility of DNA in Tris-acetate-EDTA buffers of different concentrations, with and without added NaCl. *Electrophoresis*, **23(12)**, 1935-1941 (2002).
6. Hayes, V. M. et al., Improvements in gel composition and electrophoretic conditions for broad-range mutation analysis by denaturing gradient gel electrophoresis. *Nucleic Acids Res.*, **27(20)**, e29 (1999).

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