Specification

TAE buffer (10X) A1416

Physical Description:	Liquid
Product Code:	A1416
Product Name:	TAE buffer (10X)
Specifications:	pH (20°C; H_2O): 8.5 ± 0.2 **Composition:** EDTA · NA_2 · $2H_2O$: 3.72 g/L (0.01 M) Acetic acid glacial: 12.01 g/L (0.20 M) Tris: 48.46 g/L (0.40 M)
WGK:	1
Storage:	RT
CS:	38220000

Comment

TAE buffer is the most commonly used electrophoresis buffer for agarose gels. Originally, it was developed for polyacrylamide gels with a slightly different composition (40 mM Tris; 20 mM NaOAc; 2 mM EDTA · Na_2; pH 7.8 at \+5°C with acetic acid; ref. 1). Today, this buffer is used in a modifed form (40 mM Tris acetate; 1 mM EDTA · Na_2; ~pH 8.5). TAE has a lower buffer capacity than TBE, but double-stranded linear DNA migrates 10 % faster with the same resolution through TAE-containing agarose gels. The working concentration is 1X or 0.5X. Store TAE at room temperature.

Bibliography

(1)Loening, U.E. (1967) *Biochem. J.* **102**, 251-257The fractionation of high-molecular-weight Ribonucleic acid by polyacrylamide-gel electrophoresis. (2)Ogden, R.C. & Adams, D.A. (1987) *Methods Enzymol.* **152**, 61-87Electrophoresis in agarose and acrylamide gels. (3)Sambrook, J., Fritsch, E.F. & Maniatis, T. (1989) *Molecular Cloning\:* A Laboratory Manual, 2nd Edition. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. (4)Ausubel, F.A., Brent, R., Kingston, R.E., Moore, D.D., Seidman, J.G., Smith, J.A. & Struhl, K. (eds.) (1995) *Current Protocols in Molecular Biology.* Greene Publishing & Wiley-Interscience, New York.

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