

Technical Datasheet

Product Name: TBE Buffer

Catalogue Number: BPBOI012

Concentration: 10x

Introduction:

Tris-Borate-EDTA (TBE) buffer is widely utilised in DNA agarose gel electrophoresis as the gel matrix and running buffer. It is particularly advantageous for high-resolution separation of small DNA fragments and is often preferred when consistent buffer performance is required over prolonged electrophoresis runs. TBE is known for maintaining buffer integrity over extended periods, which is essential in applications where reproducibility and accuracy are crucial.

Product Description:

TBE Buffer, standing for Tris-Borate-EDTA, is a staple in molecular biology for the electrophoresis of nucleic acids, including DNA and RNA. It provides a stable pH environment and an appropriate ionic strength, ensuring effective migration of nucleic acids through the agarose gel. This buffer is especially suitable for analytical and preparative electrophoresis, where the resolution of smaller DNA fragments is critical.

Applications:

Bio Pioneer's TBE Buffer is versatile and suitable for a range of applications:

Agarose Gel Electrophoresis: Ideal for the high-resolution separation of DNA and RNA in agarose gels, particularly small fragments.

Nucleic Acid Electrophoresis: Suitable for both analytical and preparative gel electrophoresis of nucleic acids.

DNA and RNA Analysis: Frequently used in experiments requiring precise DNA and RNA band resolution.

Composition:

10X TBE is prepared using highly pure molecular biology grade Tris base, boric acid, and EDTA. The buffer is premixed to save time and ensure consistency in experimental conditions.

Storage Conditions:

10X TBE can be stored at room temperature (15-25°C).

Warning and Precautions:

Not intended for medicinal use. Review the Safety Data Sheet (SDS) thoroughly before starting the protocol. Always wear protective gloves, clothing, eye protection, and face protection. Adhere to good clinical laboratory practices when handling clinical samples, and follow standard precautions as outlined in established guidelines. For detailed safety procedures, consult the product's Safety Data Sheet.

Safety Information:

The 10X TBE is intended solely for laboratory applications and should not be used for pharmaceuticals, household purposes, or other non-laboratory uses. Always observe proper laboratory safety protocols, including wearing gloves and safety goggles when handling the buffer. It is not compatible with bleach-containing disinfectants. For details on hazards and safe handling procedures, please consult the Safety Data Sheet (SDS).

Technical Assistance:

At BioPioneer, we are committed to providing top-notch technical support and ensuring its accessibility. For any technical assistance, please email us at qc@biopioneer.in.