

FICHE TECHNIQUE :

## **Tampon TBE (5X, 10X, 50X)**

Ref : EH03-01 / EH03-02

**Storage :** store at room temperature.

### **Description :**

TBE buffer is a kind of DNA electrophoresis buffer solution commonly used in biology. It is mainly used in DNA agarose gel electrophoresis. The main components of TBE are Tris- borate and EDTA, which have strong buffering capacity and are suitable for long time electrophoresis with high resolution and good separation effect when the electrophoresis is less than 1kb. Boric acid composition in TBE buffer will affect DNA recovery efficiency and subsequent enzymatic reactions. To conduct the agarose gel electrophoresis recovery experiment of DNA fragments, TAE buffer is recommended.

### **Recommendations for Use :**

- TBE can be diluted to 1X before use in electrophoresis, 0.5x is also acceptable.
- TBE is not recommended for preparative gels for nucleic acid retrieval. Since borate in TBE buffer is a strong inhibitor for many enzymes, TAE buffer (Tris Acetate-EDTA buffer) is recommended when researching Enzyme Applications for DNA sample.
- The TBE is used both as a migration buffer and as a buffer for the preparation of the gel (the TBE buffer is filtered through a 0.22um membrane).

### **Composition of the TBE 1X buffer :**

- Tris (89mM), boric acid (89mM), EDTA (2mM), pH: 8.3.