**50X TE Buffer**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Code</th>
<th>Kit Packing</th>
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<tbody>
<tr>
<td>50X TE Buffer</td>
<td>ML125-100ML</td>
<td>100 ml</td>
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<td></td>
<td>ML125-500ML</td>
<td>500 ml</td>
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**Introduction:** The TE Buffer is an extensively used buffer in Molecular Biology. Its principal application includes protection of DNA and RNA from degradation. The 50X buffer should be diluted to 1X before use.

**Description:** TE buffer, also called ‘T\textsubscript{10}E\textsubscript{1}’ Buffer or ‘T ten E one buffer’, is composed of Tris, a buffering agent and EDTA, a chelating agent. EDTA prevents the degradation of DNA and RNA by chelating divalent metal ions which are required for nuclease activity. The Tris buffering agent and EDTA metal chelating properties help protect DNA and RNA. Based on nuclease studies the pH should be adjusted to 7.5 for RNA and 8.0 for DNA as the respective DNA and RNA nuclease are supposed to be less active at these pH values, but pH 8.0 can be used for storage of both DNA and RNA.

**Application:** TE buffer is mainly used in storing DNA. Genomic and plasmid DNA can be stored in TE Buffer at 4°C for short-term use, or -20°C to -80°C for long-term storage. Repeated freeze-thaw cycles should be avoided. Moreover, Tris-EDTA buffer disrupts protein cross-links and therefore is useful in unmasking antigens and epitopes in formalin-fixed and paraffin-embedded tissue sections. This buffer is also used in immunohistochemical detection of some proteins as it enhances the staining intensity of antibodies.

**Composition:** 50X TE Buffer consists of 500 mM Tris and 50 mM EDTA adjusted to pH 8.0. This buffer is supplied as 50X stock and should be diluted to 1X before use.

**Properties:**
- **Appearance:** Colorless solution
- **Clarity:** Clear and free of particles
- **pH:** 7.98 – 8.02
- **DNase & RNase:** None detected
- **Bioburden:** None detected
- **Suitability test:** This solution has been tested and is suitable for use in various Molecular Biology applications.

**Storage conditions:** 50X TE Buffer has to be stored at room temperature (15 - 25 °C).

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*Please refer disclaimer Overleaf*
Technical Assistance:
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Storage temperature

Do not use if package is damaged

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