Molecular Biology Grade

TE(Tris-EDTA) Buffer

Poduct	Con.	Cat#	Size
TE Buffer	10X	IBS-BT009	500ml
T10E0.1 Buffer	1X	IBS-BT010	500ml
TE Buffer	1X, pH 8.0	IBS-BT011	500ml
TE Buffer	1X, pH 8.0	IBS-BT011b	100ml
	1X, pH 8.0	IBS-BT011a	1L
TE Buffer	1X, pH 8.0	IBS-BT01b	100ml
	1X, pH 7.2	IBS-BT012	500ml
	1X, pH 7.4	IBS-BT039	500ml
	1X, pH 7.6	IBS-BT040	500ml
	100X, pH 7.6	IBS-BT045	500ml

Components : 1X TE Buffer pH x.x - 10mM Tris, 1mM EDTA, pH x.x
pH adjusted with hydrochloric acid(HCl), sterile solution

Storage Conditions : Room Temperature
Stable for a minimum of 1 year from date of receipt at room temperature.

Introduction :
TE buffer is a commonly used buffer solution in molecular biology, especially in procedures involving DNA or RNA. "TE" is derived from its components: Tris, a common pH buffer, and EDTA, a molecule that chelates cations like Mg^{2+}. The purpose of TE buffer is to solubilize DNA or RNA, while protecting it from degradation.

Recipe :
TE buffer is also called as $T_{10}E_1$ Buffer, and read as "T ten E one buffer". To make a 100 ml solution of $T_{10}E_1$ Buffer, 1 ml of 1 M Tris-HCl (pH 8.0) and 0.2 ml EDTA (0.5 M) and make up with double distilled water up to 100ml.
Based on nuclease studies from the 1980's, the pH is usually adjusted to 7.5 for RNA and 8.0 for DNA. The respective DNA and RNA nucleases are supposed to be less active at these pH values, but pH 8.0 can safely be used for storage of both DNA and RNA.
EDTA further inactivates nucleases, by binding to metal cations required by these enzymes.
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.

Application :
TE-Buffer (pH x.x) is the standard buffer solution for dissolving and storage of plasmid DNA or oligonucleotides, because nucleic acids are largely protected from degradation.