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Preparation of DEPC-treated water

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ABSTRACT

Diethyl pyrocarbonate (DEPC) is a wide-spectrum RNase inhibitor. DEPC-treated water is generally used when working with RNA

MATERIALS

Diethyl pyrocarbonate (Sigma-Aldrich #D5758)

SAFETY WARNINGS

Trace amounts of DEPC will modify purine residues in RNA by carboxymethylation. Carboxymethylated RNA is translated with very low efficiency in cell-free systems. However, its ability to form DNA:RNA or RNA:RNA hybrids is not seriously affected unless a large fraction of the purine residues have been modified. Residual DEPC must always be eliminated from solutions or vessels by autoclaving or heating to 100°C for 15 minutes.

1 Add 1 mL of fresh DEPC to 1 L of H_2O. Shake well to disperse the DEPC through the H_2O. 1d

Incubate at 37°C for at least 12 h and/or autoclave at 15 psi on liquid cycle for 20 min to inactivate the remaining DEPC.