

## REA-1012 DEPC-Treated Water

Diethylpyrocarbonate (DEPC)-treated Water is produced specifically for sensitive laboratory applications, is sterile and is free of all RNase and DNase contamination. Treated with DEPC, this water serves as a reliable contamination-free source of water to use when working with RNA and all experiments that require RNase-free water, including PCR, RT-PCR, and real-time PCR. DEPC Treated Water is provided in RNase-free containers.

### Features:

- **Clear, Liquid Solution (1 liter)**
- **DNase & RNase-Free**
- **Commonly used in molecular biology and biochemistry applications**
- **Free of impurities**
- **Long-storage when handled and stored properly under defined conditions**

### Mode of Action

Diethyl Pyrocarbonate (DEPC) is a well-known nuclease inhibitor, particularly against ribonucleases (RNases). DEPC reacts with many enzymes containing -NH, -SH, or -OH groups in their active sites. In particular, DEPC reacts with Cys, His, Lys, Ser, Thr, and Tyr residues, as well as N-terminal sites of proteins. DEPC acts as a condensing agent between lysine  $\epsilon$ -amine groups and the carboxyl groups of aspartic or glutamic acid. DEPC has been used as a gentle esterifying agent and preservative. REA-1012 is a 0.1% DEPC solution (1 mL of DEPC diluted in ultrapure water to 1 L)..