

## Description

Nuclease-free water is an essential component of all PCR-based molecular biology work. Nucleases such as DNAses and RNAses are enzymes that cleave DNA and RNA strands into smaller fragments, and if present can actively degrade DNA in samples, DNA extracts, reagents, PCR products and primers. Use of nuclease-free reagents and water, plastic consumables, and good laboratory practice, is therefore essential to avoid the degradation of samples and reagents.

This PCR grade water is highly purified, DEPC treated and autoclaved to remove RNAses and DNAses, and is ideal for routine PCR work.

### Catalogue

[PGW-2](#)

[PGW-5](#)

### Pack Size

2 mL

5 mL

*For research and educational use only.*

## Application Recommendations

### PCR and qPCR protocols

Use PCR grade water as a component of PCR reaction mixes when using 2x or 5x PCR Master Mixes, lyophilised PCR beads, or individual PCR reagents.

### Primer dilution

Use PCR grade water to dilute stock primers (e.g. 100 mM) to working concentrations (e.g. 10 mM) prior to use in PCR.

PCR grade water can be used to dilute lyophilised primers to stock concentrations (e.g. 100 mM). However, for better primer stability at room temperature or 2–8 °C we would recommend using a storage buffer of 10 mM Tris-HCl (pH 8) and 0.1 mM EDTA.

## Reagent Composition

PCR grade water, nuclease free, DEPC treated, and autoclaved sterile.

## Storage & Stability

Routine storage at -20 °C once opened. Temporary storage at room temperature has no detrimental effects on the quality of this reagent. Optionally aliquot into sterile tubes and freeze to minimise potential microbial contamination after opening.

## Shipping conditions

Shipped at room temperature. Shipping at room temperature has no detrimental effects on the quality of this reagent.

## **Safety warnings and precautions**

This product and its components are not considered hazardous. However, as with all scientific reagents this product should be handled and stored with care as standard practice. Wear gloves.