# GeneAmp<sup>®</sup> 10X PCR Gold Buffer and MgCl<sub>2</sub>



For Research Use Only. Not for use in diagnostic procedures.

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GeneAmp® 10X PCR Gold Buffer and MgCl<sub>2</sub>, 1.5 mL GeneAmp® 10X PCR Gold Buffer and MgCl<sub>2</sub>, 6 x 1.5 mL GeneAmp® 10X PCR Gold Buffer and MgCl<sub>2</sub>, 2 x 75 mL P/N: 4306894 P/N: 4306898 P/N: 4379874

## **Buffer Characteristics**

GeneAmp 10X PCR Gold Buffer is formulated to provide flexible, efficient activation of AmpliTaq Gold<sup>®</sup> DNA Polymerase and AmpliTaq Gold<sup>®</sup> LD DNA Polymerase, resulting in a highly specific, robust PCR amplification. The ionic strength and the pH of GeneAmp 10X PCR Gold Buffer have been optimized carefully and controlled for use with the AmpliTaq Gold enzyme. The magnesium ion concentration required for optimal PCR amplification is dependent on the specific set of primers and template used. The supplied 25 mM MgCl<sub>2</sub> solution should be used to adjust magnesium ion concentration. Varying the concentration of MgCl<sub>2</sub> around the midpoint of 2.5 mM, with a typical range between 1.0 mM and 4.0 mM is recommended.

#### List of Components

<u>Component</u>	Description
10X PCR Gold Buffer	150 mM Tris-HCl, pH 8.0; 500 mM KCl
MgCl <sub>2</sub> Solution	25 mM MgCl <sub>2</sub>

All solutions are in autoclaved, deionized, ultrafiltered water. When stored at -20 °C in a constant temperature freezer, this product will maintain performance until the control date on the tube or bottle label. Before use, thaw frozen components to room temperature and mix well by vortexing.

### For 75 mL Bottles Only

To prepare convenient-size aliquot:

1.	Autoclave 2 mL polypropylene microcentrifuge screwcappped tubes or 1.5 mL polypropylene microcentrifuge tubes) at 121 °C for 20 minutes.
	Note: Up to 75 tubes (1.0 mL fill) can be filled from the stock bottle.
2.	Pipette 1.5 mL into 2.0 mL polypropylene microcentrifuge screwcapped tubes or 1.0 mL into 1.5 mL
	polypropylene microcentrifuge flip-top tubes.
3.	Use aseptic techniques (with gloves and sterile pipette tips) to aliquot the buffer into each of the tubes,
	capping each one as it is filled.
4.	Store the tubes upright in a rack in a -20 °C constant temperature freezer.

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