AMPLIQON
PCR ENZYMES & REAGENTS

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MADE IN DENMARK

Standard Buffer

Cat. No.	10x Standard Buffer, 15 mM $MgCl_2$ ID: 5100510
A302103	3 x 1.5 ml
A302110	10 x 1.5 ml
A302156	6 x 5 ml
A302120	1 x 1000 ml

Features and General Description

Standard Buffer

Standard Buffer is the traditional potassium (K^+) buffer. Standard Buffer promotes high specificity and careful optimization of primer annealing temperatures and Mg^{2+} concentrations may be required.

Magnesium

Mg^{2+} is required for polymerase activity. Low Mg^{2+} concentrations increase the fidelity but with too low Mg^{2+} concentrations the polymerase will not work. The Mg^{2+} concentration available in the reaction is dependent on several parameters e.g. the presence of chelators or the dNTP concentration. Therefore, the Mg^{2+} concentration should be optimized.
Note: The 10x Standard Buffer is also available in a Mg^{2+} free version.

Tween

Non-ionic detergents are used to prevent the polymerase to stick to the walls of the tube, to stabilize the polymerase and increase yield. However, these agents might increase non-specific amplification or interfere with downstream reactions. Tween can be used to neutralize SDS contaminations in the DNA template.
Note: The 10x Standard Buffer is also available in a detergent free version.

Recommended Storage and Stability

Long term storage at -20 °C. Product expiry at -20 °C is stated on the label.
Option: Store at +4 °C for up to 6 months.

Quality Control

Each lot of buffer is functionally tested in PCR.

Kit Components

10x Standard Buffer

Tris-HCl pH 8.5, KCl, 15 mM $MgCl_2$, 1% Tween® 20.

Determining the optimal buffer system for your application

Ampliqon offers several PCR buffers to allow the customer to choose the optimal buffer system for a specific amplification process.

For your specific application the optimal reaction condition can be determined by comparing PCR reactions containing the different Ampliqon buffers.
The final concentration of the buffer in the reaction should be 1x.

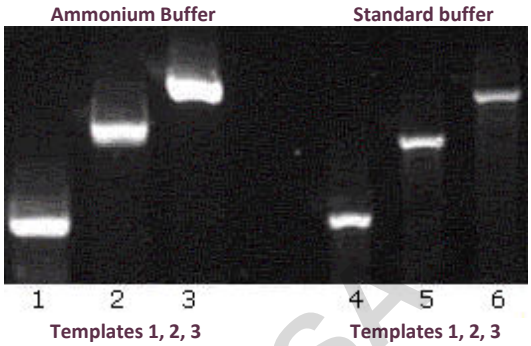


Figure 1: Amplification of three different cDNA templates using Ammonium Buffer versus Standard Buffer.

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

Other product sizes, combinations and customized solutions are available. Please look at www.ampliqon.com or ask for our complete product list for PCR Enzymes. For customized solutions please contact us.

Made in Denmark

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