AMPLIQON
PCR ENZYMES & REAGENTS

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Ammonium Buffer

MADE IN **DENMARK**

Cat. No.	10x Ammonium Buffer, 15 mM $MgCl_2$ ID: 5100950
A301103	3 x 1.5 ml
A301110	10 x 1.5 ml
A301156	6 x 5 ml

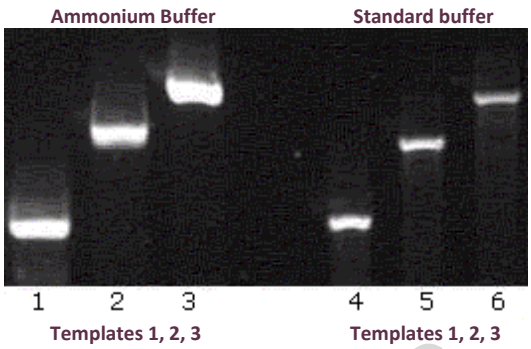


Figure 1: Amplification of three different cDNA templates using Ammonium Buffer versus Standard Buffer.

Features and General Description

Ammonium Buffer

Ammonium Buffer (NH_4^+) usually gives a superior amplification signal (high yield) in many primer-template systems. Ammonium in the buffer minimizes the need for optimization of the $MgCl_2$ concentration or the annealing temperature for most primer-template systems.

Magnesium

Mg^{2+} is required for polymerase activity. Low Mg^{2+} concentrations increase 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 Ammonium Buffer is also available in a Mg^{2+} free version.

Tween, Triton

Non-ionic detergents are used to prevent the polymerase from sticking 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 Ammonium 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 Ammonium Buffer

Tris-HCl pH 8.5, $(NH_4)_2S0_4$, 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.

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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DOMINIQUE DUTSCHER SAS