10X STANDARD BUFFER
1,7mM MgCl2, 3 TUBES OF 1,5ml

Cat. No.: 257757

MADE IN **DENMARK**

-	**10x Standard Buffer, 1,7mM MgCl2, 3 tubes of 1,5ml**
ID No.	CL1.500-0009
Cap color	Blue
Content	3 x 1.5 ml

Features and General Description

10x Standard Buffer are usually supplied in 10x formulations with 15 mM $MgCl_2$ included but are also available as Mg^{2+} free buffer, detergent free buffer as well as Mg^{2+} and detergent free buffer.

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.

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.

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

ClearLine 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 buffers.
The final concentration of the buffer in the reaction should be 1x.

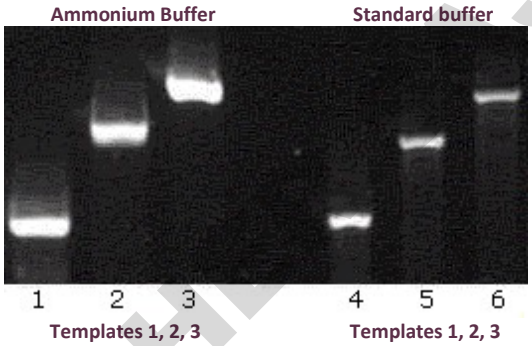

Figure 1: Amplification of three different cDNA templates using Ammonium Buffer versus Standard Buffer.

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

Made in Denmark
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