

**Standard PCR and Hot Start PCR**

<b>Taq and TEMPase DNA Polymerases</b>							
with 10x Ammonium Buffer, 10x Standard Buffer, 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)							
	Taq 5 U/μl	Taq 1 U/μl	Taq RED 5 U/μl	Taq RED 1 U/μl	Taq 5 U/μl, Glycerol free	TEMPase 5 U/μl	TEMPase 5 U/μl Glycerol free
• 15 mM MgCl <sub>2</sub> *	A116199	A056199	A206199	A066199	A106199	A226199	A246199
• Mg <sup>2+</sup> free	A116299	A056299	A206299	A066299	A106299	A226299	A246299
• Detergent free	A116499	A056499	A206499	A066499	A106499	A226499	A246499
• Mg <sup>2+</sup> free, deterg. free	A116599	A056599	A206599	A066599	A106599	A226599	A246599
<b>Volume</b>							
Size in units	50	50	50	50	50	50	50
of enzyme 5 U/μl	1 x 10 μl	1 x 50 μl	1 x 10 μl	1 x 50 μl	1 x 10 μl	1 x 10 μl	1 x 10 μl
of each buffer if included	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml

\*5x PCR Buffer RED is also included.

<b>Taq DNA Polymerase and TEMPase Hot Start DNA Polymerase 5 U/μl</b>	
With 10x Ammonium Buffer, 10x Standard Buffer, 10x Combination Buffer (15 mM MgCl <sub>2</sub> ) and 5x PCR Buffer RED (7.5 mM MgCl <sub>2</sub> )	
• 15 mM MgCl <sub>2</sub>	ATT6199

**Standard PCR Master Mix**

<b>Taq OptiMix CLEAR</b>		An optimised Taq master mix with increased specificity	
Taq OptiMix CLEAR 2x Master Mix			
• 1.5 mM MgCl <sub>2</sub> final conc.	A370599		
<b>Taq DNA Polymerase Master Mix</b>		Suitable for standard tests due to reduced setup time and increased reproducibility.	
Taq DNA Polymerase 2x Master Mix		Taq DNA Polymerase 1.1x Master Mix	
• 1.5 mM MgCl <sub>2</sub> final conc.	A140399	• 1.5 mM MgCl <sub>2</sub> final conc.	A120399
• 2 mM MgCl <sub>2</sub> final conc.	A150399	• 2 mM MgCl <sub>2</sub> final conc.	A130399
<b>Taq DNA Polymerase Master Mix RED - for direct loading</b>		With inert red dye and stabilisers to allow direct loading to agarose and SDS DNA gels.	
Taq DNA Polymerase 2x Master Mix RED		Taq DNA Polymerase 1.1x Master Mix RED	
• 1.5 mM MgCl <sub>2</sub> final conc.	A180399	• 1.5 mM MgCl <sub>2</sub> final conc.	A160399
• 2 mM MgCl <sub>2</sub> final conc.	A190399	• 2 mM MgCl <sub>2</sub> final conc.	A170399
<b>Volume</b>			
Reactions of 50 μl	Sample 20		
of 1.1x Master Mixes	1 x 0.9 ml		
of 2x Master Mixes	1 x 0.5 ml		

**Hot Start PCR Master Mix and Master Mix BLUE**

<b>TEMPase Master Mix</b>				For reaction setup at room temperature, superior amplification and high specificity. Recommended for detection of low copy number targets.			
TEMPase DNA Polymerase 2x Master Mix A (based on Ammonium Buffer)		TEMPase DNA Polymerase 2x Master Mix C (based on Combination Buffer)					
• 1.5 mM MgCl <sub>2</sub> final conc.	A230399	• 1.5 mM MgCl <sub>2</sub> final conc.	A230799				
<b>TEMPase Master Mix BLUE - for direct loading</b>		With inert blue dye and stabilisers to allow direct loading to agarose and SDS DNA gels.					
TEMPase DNA Polymerase 2x Master Mix A BLUE		TEMPase DNA Polymerase 2x Master Mix C BLUE					
• 1.5 mM MgCl <sub>2</sub> final conc.	A290499	1.5 mM MgCl <sub>2</sub> final conc.	A290899				
<b>Volume</b>							
Reactions of 50 μl	Sample 20						
of 2x Master Mixes	1 x 0.5 ml						

## GC-rich PCR

<b>GC-rich DNA Target Kit:</b> Optimized to successfully amplify difficult GC-rich DNA targets that regular master mixes cannot.	
TEMPase Hot Start DNA Polymerase with two special buffers and extra MgCl <sub>2</sub> (25 mM)	
4x GC Buffer I and 4x GC Buffer II	A227199
<b>Volume</b>	
Size in units	Sample 50
of enzyme 5 U/μl	1 x 10 μl
of each buffer	1 x 1.5 ml
of MgCl <sub>2</sub>	1 x 1.5 ml

## GC-rich PCR Master Mix

<b>GC-rich TEMPase Master Mix</b> Optimized to successfully amplify difficult GC-rich DNA targets that regular master mixes cannot.			
GC TEMPase 2x Master Mix I		GC TEMPase 2x Master Mix II	
• 1.5 mM MgCl <sub>2</sub> final conc.	A331799	• 1.5 mM MgCl <sub>2</sub> final conc.	A332799
<b>Volume</b>			
Reactions of 50 μl	Sample 20		
of 2x Master Mixes	1 x 0.5 ml		

## High Fidelity PCR

<b>AQ90 High Fidelity DNA Polymerase 2 U/μl</b> High fidelity proofreading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.	
With 10x AQ90 Buffer and extra 25 mM MgCl <sub>2</sub> (25 mM)	
• 10x AQ90 Buffer	A456699*
<b>Volume</b>	
Size in units	Sample 40
of enzyme	1 x 20 μl
of buffer	1 x 1.5 ml
of MgCl <sub>2</sub>	1 x 1.5 ml
of Betaine 5M	1 x 1 ml
<b>AQ90 High Fidelity DNA Polymerase 2x Master Mix</b> High fidelity proofreading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.	
AQ90 High Fidelity DNA Polymerase 2x Master Mix	
• 2 mM MgCl <sub>2</sub> final conc.	A470799*
<b>Volume</b>	
Reactions of 50 μl	Sample 20
of 2x Master Mix	1 x 50 μl
of Betaine 5M	1 x 1 ml

<b>AccuPOL DNA Polymerase 2.5 U/μl</b> High fidelity proofreading DNA polymerase, recommended for cloning, mutagenesis and when blunt ends are required.	
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)	
• 15 mM MgCl <sub>2</sub>	A211199
• Mg <sup>2+</sup> free	A211299
• Tween free	A211499
• Mg <sup>2+</sup> free, Tween free	A211599
<b>Volume</b>	
Size in units	Sample 50
of enzyme	1 x 20 μl
of each buffer if included	1 x 1.5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml

## Genotyping

<b>Q-Extract DNA Extraction*</b> The optimal solution for genotyping incl. easy DNA extraction.	
Q-Extract DNA Extraction PCR Kit with Taq DNA Polymerase 2x Master Mix RED	
• 1.5 mM MgCl <sub>2</sub> final conc.	A570099
<b>Volume</b>	
Reactions of 100 µl	20
Volume of Q-Extract Solution	1 x 2 ml
Volume of enzyme	1 x 0.25 ml

\*Q-Extract DNA Extraction Solution is also available as a separate product. See page 4.

## Multiplex PCR Master Mix

<b>Multiplex TEMPase Master Mix</b> For multiplex PCR reaction setup at room temperature, allowing to apply multiple primer sets within a single tube.	
Multiplex TEMPase 2x Master Mix with 1 x 1.5 ml MgCl <sub>2</sub>	
• 3 mM MgCl <sub>2</sub> final conc.	A260399
<b>Volume</b>	
Reactions of 50 µl	Sample 20
of 2x Master Mixes	1 x 0.5 ml

## Real-Time Master Mix

<b>RealQ Plus 2x Master Mix</b> Optimized all-in-one master mix for real-time PCR, well suited for quantitation, detection of gene expression, SNP analysis, pathogen detection and multiplex PCR (for probe).		
	Green	for Probe
• Without ROX	A323499	A313499
• Low ROX	A324499	A314499
• High ROX	A325499	A315499
<b>Volume</b>		
Reactions of 25 µl	Sample 40	
Volume of 2x Master Mix	1 x 0.5 ml	

## RT-PCR

<b>RealQ Virus One-step RT-PCR Kit</b> For detection of viral, low-copy RNA templates	
With 5x PCR Mix, 20x RT Mix and ROX	A663399
<b>Volume</b>	
Reactions of 20 µl	50
Volume of 20x RT Mix	1 x 0.1 ml
Volume of enzyme	1 x 0.2 ml
Volume of ROX	1 x 0.05 ml

## DNA Ladders

<b>DNA Ladders</b> Suitable for DNA quantitation	
High Range DNA Ladder, Low Range DNA Ladder and PCR DNA Ladder	A610199
Iqon Mini DNA Ladder, Iqon Low DNA Ladder and Iqon PCR Ladder	A610499
<b>Volume</b>	
Volume of ladders	3 x 0.05 ml

## dNTP Mix

<b>dNTP Mix</b> Ultrapure dNTPs for superior results in PCR and other applications	
dNTP Mix 10 mM, 2.5 mM each	A503099
<b>Volume</b>	
Volume of dNTP Mix	1 x 1 ml

**PCR Clean-Up**

<b>PureIT ExoZAP</b> One-step PCR clean-up	
PureIT ExoZAP PCR CleanUp	A620699
<b>Volume</b>	
Reactions of 2 µl	Sample 10
Volume of PureIT ExoZAP	1 x 0.02 ml

**DNA/RNA Extraction**

<b>Q-Extract DNA Extraction Solution*</b> Fast and easy DNA extraction.	
	A560099
<b>Volume</b>	
Reactions of 100 µl	20
Volume of Q-Extract Solution	1 x 2 ml

\*Q-Extract DNA Extraction is also available as a kit including Taq DNA Polymerase 2x Master Mix RED. See page 3.

<b>G2 DNA/RNA Enhancer</b> Optimizing DNA and RNA extraction efficiency	
G2 DNA/RNA enhancer beads, freeze dried	
0.1 mm beads	A420199
1.4 mm beads	A421499
<b>Volume</b>	
Volume of G2	5 x 2 ml vials