

### Standard PCR and Hot Start PCR

<b>Taq 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 RED 5 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	A206199	A106199	A226199	A246199
Mg <sup>2+</sup> free	A116299	A206299	A106299	A226299	A246299
Detergent free	A116499	A206499	A106499	A226499	A246499
Mg <sup>2+</sup> free, deterg. free	A116599	A206599	A106599	A226599	A246599
<b>Volume</b>					
Size in units	50	50	50	50	50
of enzyme 5 U/μl	1 x 10 μl	1 x 10 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
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

\*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	
1.5 mM MgCl <sub>2</sub> final conc.	A140399
2 mM MgCl <sub>2</sub> final conc.	A150399
<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	
1.5 mM MgCl <sub>2</sub> final conc.	A180399
2 mM MgCl <sub>2</sub> final conc.	A190399
<b>Volume</b>	
Reactions of 50 μl	Sample 20
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		

## Lyophilized PCR

<b>DryTech TEMPase 5 x Master Mix Clear</b> Lyophilized TEMPase Master Mix for reaction setup at room temperature. Shipping at ambient temperature.	
DryTech TEMPase 5x Master Mix with 5x DryTech Buffer Clear	
2 mM MgCl <sub>2</sub> final conc.	A747299
<b>DryTech TEMPase 5 x Master Mix Green</b> Lyophilized TEMPase Master Mix with green dye for direct loading. Shipping at ambient temperature.	
DryTech TEMPase 5x Master Mix with 5x DryTech Buffer Green	
2 mM MgCl <sub>2</sub> final conc.	A747399
<b>Volume</b>	
Reactions of 25 µl	50
of 5x Master Mixes	1 vial
of buffer	1 x 1.3 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>AQ97 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 5x AQ97 Buffer and extra MgCl <sub>2</sub> (25 mM)	
5x AQ97 Buffer	A766799
<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>AQ97 HiFi 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.	
AQ97 HiFi 2x Master Mix	
1.5 mM MgCl <sub>2</sub> final conc.	A770299
<b>Volume</b>	
Reactions of 50 µl	Sample 20
of 2x Master Mix	1 x 500 µl
of Betaine 5M	1 x 1 ml

<b>AQ97 Hot Start High Fidelity DNA Polymerase 2 U/μl</b> Ideal for cloning or amplification of difficult/long amplicons. Decreased run-time due to high-speed polymerase. Reaction setup can be performed at room temperature.	
With 5x AQ97 Buffer and extra MgCl <sub>2</sub> (25 mM)	
5x AQ97 Buffer	A786799
<b>Volume</b>	
Size in units of enzyme	Sample 40
of buffer	1 x 20 μl
of MgCl <sub>2</sub>	1 x 1.5 ml
of Betaine 5M	1 x 1 ml
<b>AQ97 HiFi Hot Start 2x Master Mix</b> Ideal for cloning or amplification of difficult/long amplicons. Decreased run-time due to high-speed polymerase. Reaction setup can be performed at room temperature.	
AQ97 HiFi Hot Start 2x Master Mix	
1.5 mM MgCl <sub>2</sub> final conc.	A790999
<b>Volume</b>	
Reactions of 50 μl	Sample 20
of 2x Master Mix	1 x 500 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 of enzyme	Sample 50
of each buffer if included	1 x 20 μl
of MgCl <sub>2</sub> if included	1 x 1.5 ml

## Genotyping

<b>Q-Extract DNA Extraction* PCR Kits</b> The optimal solution for genotyping incl. easy DNA extraction.	
Q-Extract DNA Extraction PCR Kit with Taq DNA Polymerase 2x Master Mix RED and TEMPase Hot Start DNA Polymerase 2x Master Mix A BLUE	
1.5 mM MgCl <sub>2</sub> final conc.	A57TT99
<b>Volume</b>	
Reactions of 100 μl	20
Volume of Q-Extract Solution	1 x 2 ml
Volume of master mix	2 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	

<b>RealQ Fast 2x Master Mix Green</b> Ready-to-use Master Mix for real-time PCR. Recommended for sensitive detection and accurate quantitation. Fast and super-fast programs enable low run times.		
RealQ Fast 2x Master Mix Green	A463499	
<b>Volume</b>		
Reactions of 25 µl	Sample 40	
Volume of 2x Master Mix	1 x 0.5 ml	

### RT-PCR

<b>One-step RT qPCR Kit</b> Sensitive detection of low-copy RNA templates including virus RNA		
With 4x qPCR Mix, 20x RT Mix and ROX	A833399	
<b>Volume</b>		
Reactions of 20 µl	20	
Volume of 20x RT Mix	1 x 0.02 ml	
Volume of enzyme	1 x 0.1 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 & 1.4 mm beads	A420299
<b>Volume</b>	
Volume of G2	2 x 3 vials