

**Standard PCR**

Size in units	500	1 000	2 500	5 000	10 000
<b>Taq DNA Polymerase 5 U/μl</b> For routine PCR applications, which require high yield and reliable DNA amplification.					
Without Buffer					
	A110003	A110004	A110006	A110007	A110008
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A111103	A111104	A111106	A111107	A111108
• Mg <sup>2+</sup> free	A111203	A111204	A111206	A111207	A111208
• Tween free	A111403	A111404	A111406	A111407	A111408
• Mg <sup>2+</sup> free, Tween free	A111503	A111504	A111506	A111507	A111508
With 10x Standard Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A112103	A112104	A112106	A112107	A112108
• Mg <sup>2+</sup> free	A112203	A112204	A112206	A112207	A112208
• Triton free	A112403	A112404	A112406	A112407	A112408
• Mg <sup>2+</sup> free, Triton free	A112503	A112504	A112506	A112507	A112508
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A113103	A113104	A113106	A113107	A113108
• Mg <sup>2+</sup> free	A113203	A113204	A113206	A113207	A113208
• Tween free	A113403	A113404	A113406	A113407	A113408
• Mg <sup>2+</sup> free, Tween free	A113503	A113504	A113506	A113507	A113508
With 5x PCR Buffer RED (7.5 mM MgCl <sub>2</sub> )					
	A111803	A111804	A111806	A111807	A111808
With two buffers of choice and extra MgCl <sub>2</sub> (25 mM)					
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Standard Buffer (15 mM MgCl <sub>2</sub> )	A114103	A114104	A114106	A114107	A114108
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A115103	A115104	A115106	A115107	A115108
<b>Taq DNA Polymerase 1 U/μl</b> The 1 U/μl concentration is especially convenient when preparing small amounts of reaction mix. For routine PCR applications, which require high yield and reliable DNA amplification.					
Without Buffer					
	A050003	A050004	A050006	A050007	A050008
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A051103	A051104	A051106	A051107	A051108
• Mg <sup>2+</sup> free	A051203	A051204	A051206	A051207	A051208
• Tween free	A051403	A051404	A051406	A051407	A051408
• Mg <sup>2+</sup> free, Tween free	A051503	A051504	A051506	A051507	A051508
With 10x Standard Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A052103	A052104	A052106	A052107	A052108
• Mg <sup>2+</sup> free	A052203	A052204	A052206	A052207	A052208
• Triton free	A052403	A052404	A052406	A052407	A052408
• Mg <sup>2+</sup> free, Triton free	A052503	A052504	A052506	A052507	A052508
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A053103	A053104	A053106	A053107	A053108
• Mg <sup>2+</sup> free	A053203	A053204	A053206	A053207	A053208
• Tween free	A053403	A053404	A053406	A053407	A053408
• Mg <sup>2+</sup> free, Tween free	A053503	A053504	A053506	A053507	A053508
With two buffers of choice and extra MgCl <sub>2</sub> (25 mM)					
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Standard Buffer (15 mM MgCl <sub>2</sub> )	A054103	A054104	A054106	A054107	A054108
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A055103	A055104	A055106	A055107	A055108
<b>Volume</b>					
Size in units*	500	1 000	2 500	5 000	10 000
of enzyme 5 U/μl	1 x 100 μl	2 x 100 μl	5 x 100 μl	10 x 100 μl	3 x 667 μl
of enzyme 1 U/μl	1 x 500 μl	2 x 500 μl	5 x 500 μl	10 x 500 μl	20 x 500 μl
of each 10x buffer if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml
of each 5x buffer if included	4 x 1.5 ml	7 x 1.5 ml	17 x 1.5 ml	10 x 5 ml	20 x 5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml

\* see page 3 for samples  
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## Standard PCR

Size in units	500	1 000	2 500	5 000	10 000
<b>Taq DNA Polymerase RED 5 U/μl</b> With inert red dye for convenient identification of the presence of enzyme and confirmation of complete mixing. For routine PCR applications, which require high yield and reliable DNA amplification.					
Without Buffer					
	A200003	A200004	A200006	A200007	A200008
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A201103	A201104	A201106	A201107	A201108
• Mg <sup>2+</sup> free	A201203	A201204	A201206	A201207	A201208
• Tween free	A201403	A201404	A201406	A201407	A201408
• Mg <sup>2+</sup> free, Tween free	A201503	A201504	A201506	A201507	A201508
With 10x Standard Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A202103	A202104	A202106	A202107	A202108
• Mg <sup>2+</sup> free	A202203	A202204	A202206	A202207	A202208
• Triton free	A202403	A202404	A202406	A202407	A202408
• Mg <sup>2+</sup> free, Triton free	A202503	A202504	A202506	A202507	A202508
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A203103	A203104	A203106	A203107	A203108
• Mg <sup>2+</sup> free	A203203	A203204	A203206	A203207	A203208
• Tween free	A203403	A203404	A203406	A203407	A203408
• Mg <sup>2+</sup> free, Tween free	A203503	A203504	A203506	A203507	A203508
With two buffers of choice and extra MgCl <sub>2</sub> (25 mM)					
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Standard Buffer (15 mM MgCl <sub>2</sub> )	A204103	A204104	A204106	A204107	A204108
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A205103	A205104	A205106	A205107	A205108
<b>Taq DNA Polymerase RED 1 U/μl</b> With inert red dye for convenient identification of the presence of enzyme and confirmation of complete mixing. The 1 U/μl concentration is especially convenient when preparing small amounts of reaction mix. For routine PCR applications, which require high yield and reliable DNA amplification.					
Without Buffer					
	A060003	A060004	A060006	A060007	A060008
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A061103	A061104	A061106	A061107	A061108
• Mg <sup>2+</sup> free	A061203	A061204	A061206	A061207	A061208
• Tween free	A061403	A061404	A061406	A061407	A061408
• Mg <sup>2+</sup> free, Tween free	A061503	A061504	A061506	A061507	A061508
With 10x Standard Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A062103	A062104	A062106	A062107	A062108
• Mg <sup>2+</sup> free	A062203	A062204	A062206	A062207	A062208
• Triton free	A062403	A062404	A062406	A062407	A062408
• Mg <sup>2+</sup> free, Triton free	A062503	A062504	A062506	A062507	A062508
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A063103	A063104	A063106	A063107	A063108
• Mg <sup>2+</sup> free	A063203	A063204	A063206	A063207	A063208
• Tween free	A063403	A063404	A063406	A063407	A063408
• Mg <sup>2+</sup> free, Tween free	A063503	A063504	A063506	A063507	A063508
With two buffers of choice and extra MgCl <sub>2</sub> (25 mM)					
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Standard Buffer (15 mM MgCl <sub>2</sub> )	A064103	A064104	A064106	A064107	A064108
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A065103	A065104	A065106	A065107	A065108
<b>Volume</b>					
Size in units*	500	1 000	2 500	5 000	10 000
of enzyme 5 U/μl	1 x 100 μl	2 x 100 μl	5 x 100 μl	10 x 100 μl	3 x 667 μl
of enzyme 1 U/μl	1 x 500 μl	2 x 500 μl	5 x 500 μl	10 x 500 μl	20 x 500 μl
of each buffer if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml

\* see page 3 for samples

**Standard PCR**

Size in units	500	1 000	2 500	5 000	10 000
<b>Taq DNA Polymerase Glycerol Free 5 U/μl</b> For automation and freeze-drying. For routine PCR applications, which require high yield and reliable DNA amplification.					
Without Buffer					
	A100003	A100004	A100006	A100007	A100008
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A101103	A101104	A101106	A101107	A101108
• Mg <sup>2+</sup> free	A101203	A101204	A101206	A101207	A101208
• Tween free	A101403	A101404	A101406	A101407	A101408
• Mg <sup>2+</sup> free, Tween free	A101503	A101504	A101506	A101507	A101508
With 10x Standard Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A102103	A102104	A102106	A102107	A102108
• Mg <sup>2+</sup> free	A102203	A102204	A102206	A102207	A102208
• Triton free	A102403	A102404	A102406	A102407	A102408
• Mg <sup>2+</sup> free, Triton free	A102503	A102504	A102506	A102507	A102508
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A103103	A103104	A103106	A103107	A103108
• Mg <sup>2+</sup> free	A103203	A103204	A103206	A103207	A103208
• Tween free	A103403	A103404	A103406	A103407	A103408
• Mg <sup>2+</sup> free, Tween free	A103503	A103504	A103506	A103507	A103508
With two buffers of choice and extra MgCl <sub>2</sub> (25 mM)					
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Standard Buffer (15 mM MgCl <sub>2</sub> )	A104103	A104104	A104106	A104107	A104108
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A105103	A105104	A105106	A105107	A105108
<b>Volume</b>					
Size in units*	500	1 000	2 500	5 000	10 000
of enzyme 5 U/μl	1 x 100 μl	2 x 100 μl	5 x 100 μl	10 x 100 μl	3 x 667 μl
of each buffer if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml

\* see page 3 for samples

**Samples: Standard PCR and Hot Start PCR**

<b>Samples for Taq and TEMPase DNA Polymerases, 50 units:</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.

## Standard PCR Master Mix

Size in 50 µl reactions	Sample 20	100	500	2 500	5 000	10 000
<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	A370501	A370503	A370506	A370507	-
<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	A140301	A140303	A140306	A140307	A140308
• 2 mM MgCl <sub>2</sub> final conc.	A150399	A150301	A150303	A150306	A150307	A150308
Taq DNA Polymerase 1.1x Master Mix						
• 1.5 mM MgCl <sub>2</sub> final conc.	A120399	A120301	A120303	A120306	A120307	A120308
• 2 mM MgCl <sub>2</sub> final conc.	A130399	A130301	A130303	A130306	A130307	A130308
<b>Taq DNA Polymerase Master Mix RED</b> - for direct loading 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	A180301	A180303	A180306	A180307	A180308
• 2 mM MgCl <sub>2</sub> final conc.	A190399	A190301	A190303	A190306	A190307	A190308
Taq DNA Polymerase 1.1x Master Mix RED						
• 1.5 mM MgCl <sub>2</sub> final conc.	A160399	A160301	A160303	A160306	A160307	A160308
• 2 mM MgCl <sub>2</sub> final conc.	A170399	A170301	A170303	A170306	A170307	A170308
<b>Volume</b>						
Reactions of 50 µl	Sample 20	100	500	2 500	5 000	10 000
of 1.1x Master Mixes	1 x 0.9 ml	3 x 1.5 ml	15 x 1.5 ml	75 x 1.5 ml	45 x 5 ml	50 x 9 ml
of 2x Master Mixes	1 x 0.5 ml	2 x 1.25 ml	10 x 1.25 ml	50 x 1.25 ml	25 x 5 ml	28 x 9 ml

## Hot Start PCR

### GC-rich PCR

Size in units	500	1 000	2 500	5 000	10 000	
<b>TEMPase Hot Start DNA Polymerase 5 U/µl</b> For reaction set-up at room temperature, superior amplification and high specificity.						
Without Buffer						
	A220003	A220004	A220006	A220007	A220008	
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)						
• 15 mM MgCl <sub>2</sub>	A221103	A221104	A221106	A221107	A221108	
• Mg <sup>2+</sup> free	A221203	A221204	A221206	A221207	A221208	
• Tween free	A221403	A221404	A221406	A221407	A221408	
• Mg <sup>2+</sup> free, Tween free	A221503	A221504	A221506	A221507	A221508	
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)						
• 15 mM MgCl <sub>2</sub>	A223103	A223104	A223106	A223107	A223108	
• Mg <sup>2+</sup> free	A223203	A223204	A223206	A223207	A223208	
• Tween free	A223403	A223404	A223406	A223407	A223408	
• Mg <sup>2+</sup> free, Tween free	A223503	A223504	A223506	A223507	A223508	
With two buffers and extra MgCl <sub>2</sub> (25 mM)						
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A225103	A225104	A225106	A225107	A225108	
With 5x PCR Buffer RED (7.5 mM MgCl <sub>2</sub> )						
	A221803	A221804	A221806	A221807	A221808	
<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	A227103	A227104	A227106	A227107	A227108
Size in units						
Sample 50	500	1 000	2 500	5 000	10 000	
of enzyme 5 U/µl	1 x 10 µl	1 x 100 µl	2 x 100 µl	5 x 100 µl	10 x 100 µl	3 x 667 µl
of each 10x buffer if included	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml
of each 5x buffer if included	1 x 1.5 ml	2 x 1.5 ml	4 x 1.5 ml	9 x 1.5 ml	5 x 5 ml	10 x 5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml

**Hot Start PCR**

Size in units	500	1 000	2 500	5 000	10 000	
<b>TEMPase Hot Start DNA Polymerase Glycerol Free 5 U/μl</b> For automation and freeze-drying, for reaction set-up at room temperature, superior amplification and high specificity.						
Without Buffer						
	A240003	A240004	A240006	A240007	A240008	
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)						
• 15 mM MgCl <sub>2</sub>	A241103	A241104	A241106	A241107	A241108	
• Mg <sup>2+</sup> free	A241203	A241204	A241206	A241207	A241208	
• Tween free	A241403	A241404	A241406	A241407	A241408	
• Mg <sup>2+</sup> free, Tween free	A241503	A241504	A241506	A241507	A241508	
With 10x Combination Buffer and extra MgCl <sub>2</sub> (25 mM)						
• 15 mM MgCl <sub>2</sub>	A243103	A243104	A243106	A243107	A243108	
• Mg <sup>2+</sup> free	A243203	A243204	A243206	A243207	A243208	
• Tween free	A243403	A243404	A243406	A243407	A243408	
• Mg <sup>2+</sup> free, Tween free	A243503	A243504	A243506	A243507	A243508	
With two buffers and extra MgCl <sub>2</sub> (25 mM)						
10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) + 10x Combination Buffer (15 mM MgCl <sub>2</sub> )	A245103	A245104	A245106	A245107	A245108	
<b>Volume</b>						
Size in units	Sample 50	500	1 000	2 500	5 000	10 000
of enzyme 5 U/μl	1 x 10 μl	1 x 100 μl	2 x 100 μl	5 x 100 μl	10 x 100 μl	3 x 667 μl
of each buffer if included	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml
of MgCl <sub>2</sub> if included	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml	3 x 5 ml	6 x 5 ml

**Hot Start PCR Master Mix**

**Hot Start PCR Master Mix BLUE – For Direct Gel Loading**

**Multiplex PCR Master Mix**

**GC-rich PCR Master Mix**

Size in 50 μl reactions	Sample 20	100	500	1 000	2 500	5 000	10 000
<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)							
• 1.5 mM MgCl <sub>2</sub> final conc.	A230399	A230301	A230303	A230304	A230306	A230307	A230308
TEMPase DNA Polymerase 2x Master Mix C (based on Combination Buffer)							
• 1.5 mM MgCl <sub>2</sub> final conc.	A230799	A230701	A230703	A230704	A230706	A230707	A230708
<b>TEMPase Master Mix BLUE</b> - for direct loading With inert blue dye and stabilisers to allow direct loading to agarose and SDS DNA gels.							
TEMPase DNA Polymerase 2x Master Mix A BLUE							
• 1.5 mM MgCl <sub>2</sub> final conc.	A290499	A290401	A290403	A290404	A290406	A290407	A290408
TEMPase DNA Polymerase 2x Master Mix C BLUE							
• 1.5 mM MgCl <sub>2</sub> final conc.	A290899	A290801	A290803	A290804	A290806	A290807	A290808
<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 extra MgCl <sub>2</sub> (25 mM)							
• 3 mM MgCl <sub>2</sub> final conc.	A260399	A260301	A260303	A260304	A260306	A260307	A260308
<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							
• 1.5 mM MgCl <sub>2</sub> final conc.	A331799	A331701	A331703	A331704	A331706	A331707	A331708
GC TEMPase 2x Master Mix II							
• 1.5 mM MgCl <sub>2</sub> final conc.	A332799	A332701	A332703	A332704	A332706	A332707	A332708
<b>Volume</b>							
Reactions of 50 μl	Sample 20	100	500	1 000	2 500	5 000	10 000
of 2x Master Mixes	1 x 0.5 ml	2 x 1.25 ml	10 x 1.25 ml	20 x 1.25 ml	50 x 1.25 ml	25 x 5 ml	28 x 9 ml
of MgCl <sub>2</sub> if included*	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	3 x 1.5 ml	2 x 5 ml	4 x 5 ml

\* Extra MgCl<sub>2</sub> is only included for Multiplex TEMPase Master Mix.

## High Fidelity PCR

<b>AQ90 High Fidelity DNA Polymerase 2 U/μl</b> High fidelity proof-reading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.					
With 10x AQ90 Buffer and 25 mM MgCl <sub>2</sub>					
	A456699*	A457401	A457403	A457404	A457406
<b>Volume</b>					
Size in units	Sample 20	100	500	1 000	2 500
of enzyme	1 x 10 μl	1 x 50 μl	1 x 250 μl	2 x 250 μl	5 x 250 μl
of buffer	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	4 x 1.5 ml	9 x 1.5 ml
of MgCl <sub>2</sub>	1 x 1 ml	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 x 1.5 ml

<b>AQ90 High Fidelity DNA Polymerase 2x Master Mix</b> High fidelity proof-reading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.					
	A470799*	A470701	A470703	A470706	A470707
<b>Volume</b>					
Reactions of 50 μl	Sample 20	100	500	2 500	5000
Volume of 2x Master Mix	1 x 0.01 ml	2 x 1.25 ml	10 x 1.25 ml	50 x 1.25 ml	25 x 5 ml

\* 1 tube x 1.5 ml Betaine 5M is included with the AQ90 samples.

<b>AccuPOL DNA Polymerase 2.5 U/μl</b> High fidelity proof-reading DNA polymerase, recommended for cloning, mutagenesis and when blunt ends are required.					
Without Buffer					
	-	A210002	A210003	A210004	A210006
With 10x Ammonium Buffer and extra MgCl <sub>2</sub> (25 mM)					
• 15 mM MgCl <sub>2</sub>	A211199	A211102	A211103	A211104	A211106
• Mg <sup>2+</sup> free	A211299	A211202	A211203	A211204	A211206
• Tween free	A211499	A211402	A211403	A211404	A211406
• Mg <sup>2+</sup> free, Tween free	A211599	A211502	A211503	A211504	A211506
<b>Volume</b>					
Size in units	Sample 50	250	500	1 000	2 500
of enzyme	1 x 20 μl	1 x 100 μl	1 x 200 μl	2 x 200 μl	5 x 200 μl
of each buffer if included	1 x 1.5 ml	1 x 1.5 ml	1 x 1.5 ml	2 x 1.5 ml	5 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	2 x 1.5 ml	5 x 1.5 ml

## Real-Time Master Mix

Size in 25 μl reactions	Sample 40	400	4 000
<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			
• Without ROX	A323499	A323402	A323406
• Low ROX	A324499	A324402	A324406
• High ROX	A325499	A325402	A325406
for Probe			
• Without ROX	A313499	A313402	A313406
• Low ROX	A314499	A314402	A314406
• High ROX	A315499	A315402	A315406
<b>Volume</b>			
Reactions of 25 μl	Sample 40	400	4 000
Volume of 2x Master Mix	1 x 0.5 ml	4 x 1.25 ml	40 x 1.25 ml

## G2 DNA/RNA Enhancer

Size/format in 500 µl reactions	Sample 10	50	100
<b>G2 DNA/RNA Enhancer</b> For increased DNA and RNA extraction yield. Well suited for difficult matrices e.g. clay and wine			
G2 Enhancer Solution			
• G2 DNA/RNA Enhancer Solution - Liquid	A420015	A420025	A420035
G2 Enhancer Beads			
• G2 DNA/RNA Enhancer beads 0.1 mm	A420110	A420150	A420100
• G2 DNA/RNA Enhancer beads 1.4 mm	A421410	A421450	A421400
• Glass bead 0.1 mm	-	A420150	A420100
• Glass beads 1.4 mm	-	A421450	A421400
<b>Volume/format</b>			
Reaction of 500 µl	Sample 10	50	100
Volume of G2 DNA/RNA Enhancer Solution - Liquid	1 x 5 ml	5 x 5 ml	10 x 5 ml
Format of G2 DNA/RNA Enhancer beads	10 x 2 ml vial	50 x 2 ml vial	100 x 2 ml vial
Format of Glass beads	-	50 x 2 ml vial	100 x 2 ml vial

## Nucleotides

<b>dNTP Mix:</b> dATP, dCTP, dGTP and dTTP equimolar mixed in one tube				
100 mM (25 mM of each: dATP, dCTP, dGTP and dTTP)	A500004	A500007	-	-
40 mM (10 mM of each: dATP, dCTP, dGTP and dTTP)	A502004	A502007	-	-
10 mM (2,5 mM of each: dATP, dCTP, dGTP and dTTP)	-	-	A503004	A503005
<b>Volume</b>				
of dNTP Mix		2 x 0.5 ml	8 x 0.5 ml	2 x 1 ml
				5 x 1 ml

<b>dNTP Set:</b> One tube of each dATP, dCTP, dGTP and dTTP, 100 mM each				
	A511104	A511107	A511109	A511120
<b>Volume</b>				
Volume of each dNTP in the Set	1 x 0.25 ml	4 x 0.25 ml	20 x 0.25 ml	2 x 1 ml
Total number of tubes	4	16	80	8

<b>Single dNTPs:</b> One tube of one specific dNTP	
dATP, 100 mM	A521102
dCTP, 100 mM	A521202
dGTP, 100 mM	A521302
dTTP, 100 mM	A521402
dUTP, 100 mM	A521502
<b>Volume</b>	
Volume of dNTP	1 x 0.25 ml

## Buffers, Special Buffers, and MgCl<sub>2</sub>

<b>10x Ammonium Buffer</b>			
• 15 mM MgCl <sub>2</sub>	A301103	A301110	A301156
• Mg <sup>2+</sup> free	A301203	A301210	A301256
• Tween free	A301403	A301410	A301456
• Mg <sup>2+</sup> free, Tween free	A301503	A301510	A301556
<b>10x Standard Buffer</b>			
• 15 mM MgCl <sub>2</sub>	A302103	A302110	A302156
• Mg <sup>2+</sup> free	A302203	A302210	A302256
• Triton free	A302403	A302410	A302456
• Mg <sup>2+</sup> free, Triton free	A302503	A302510	A302556
<b>10x Combination Buffer</b>			
• 15 mM MgCl <sub>2</sub>	A303103	A303110	A303156
• Mg <sup>2+</sup> free	A303203	A303210	A303256

• Tween free	A303403	A303410	A303456
• Mg <sup>2+</sup> free, Tween free	A303503	A303510	A303556
<b>5x PCR Buffer RED</b>			
	A301803	-	-
<b>4x GC Buffer I</b>			
	A301703	A301710	A301756
<b>4x GC Buffer II</b>			
	A302703	A302710	A302756
<b>MgCl<sub>2</sub>, 25 mM</b>			
	A308103	A308110	A308156
<b>Volume</b>			
Volume of buffers and MgCl <sub>2</sub>	3 x 1.5 ml	10 x 1.5 ml	6 x 5 ml

## Buffer Kits

	Volume	Cat. no.
<b>Ammonium Buffer, Standard Buffer and Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>		
• 15 mM MgCl <sub>2</sub> *	5 x 1 x 1.5 ml	A306101
• Mg <sup>2+</sup> free	4 x 1 x 1.5 ml	A306201
• Tween free	4 x 1 x 1.5 ml	A306401
• Mg <sup>2+</sup> free, Tween free	4 x 1 x 1.5 ml	A306501

\* 5x PCR Buffer RED is also included.

## PCR Accessories

	Volume	Cat. no.
<b>H<sub>2</sub>O</b>		
PCR Grade Water	6 x 5 ml	A360056
<b>Enhancers</b>		
Betaine Enhancer Solution 5 M	5 x 1 ml	A351104
<b>Additives</b>		
50 x Glass Blocking Agent	3 x 0.2 ml	A351413
50 x Glass Blocking Agent	3 x 1.25 ml	A351423
ROX Internal Reference Dye, 200 µM	3 x 0.2 ml	A351513
<b>Loading Buffers</b> - for agarose and SDS gels		
Loading Buffer Red	5 x 1 ml	A608104
Loading Buffer Blue	5 x 1 ml	A608204
Loading Buffer Orange	5 x 1 ml	A608304
Loading Buffer Cyan	5 x 1 ml	A608404
<b>DNA Ladders</b> - suitable for DNA quantitation		
High Range DNA Ladder, 200-12000 bp, 250 lanes	1 x 0.5 ml	A610141
Low Range DNA Ladder, 100-1000 bp, 250 lanes	1 x 0.5 ml	A610241
PCR DNA Ladder, 100-3000 bp, 250 lanes	1 x 0.5 ml	A610341
Iqon Mini DNA Ladder, 100 – 500 bp, 100 lanes	1 x 0.5 ml	A610441
Iqon Low DNA Ladder, 100 – 1000 bp, 100 lanes	1 x 0.5 ml	A610541
Iqon PCR Ladder, 100 – 3000 bp, 100 lanes	1 x 0.5 ml	A610641