

**Standard PCR**

| <b>Taq DNA Polymerase 5 U/μl</b> For routine PCR applications, which require high yield and reliable DNA amplification.   |            |            |             |             |            |
|---|------------|------------|-------------|-------------|------------|
| Units   | 500        | 1 000      | 2 500       | 5 000       | 10 000     |
| <b>Without Buffer</b>   | A110003    | A110004    | A110006     | A110007     | A110008    |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| • 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    |
| <b>With 10x Standard Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| • 15 mM MgCl <sub>2</sub>   | A112103    | A112104    | A112106     | A112107     | A112108    |
| • Mg <sup>2+</sup> free   | A112203    | A112204    | A112206     | A112207     | A112208    |
| • Tween free  | A112403    | A112404    | A112406     | A112407     | A112408    |
| • Mg <sup>2+</sup> free, Tween free   | A112503    | A112504    | A112506     | A112507     | A112508    |
| <b>With 10x Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |             |             |            |
| • 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    |
| <b>With 5x PCR Buffer RED (7.5 mM MgCl<sub>2</sub>)</b>   | A111803    | A111804    | A111806     | A111807     | A111808    |
| <b>With two buffers of choice and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Standard Buffer (15 mM MgCl <sub>2</sub> )  | A114103    | A114104    | A114106     | A114107     | A114108    |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Combination Buffer (15 mM MgCl <sub>2</sub> )   | A115103    | A115104    | A115106     | A115107     | A115108    |
| <b>Volume</b>   |            |            |             |             |            |
| Enzyme  | 1 x 100 μl | 2 x 100 μl | 5 x 100 μl  | 10 x 100 μl | 3 x 667 μl |
| 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   |
| 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  |
| 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   |
| <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. |            |            |             |             |            |
| Units   | 500        | 1 000      | 2 500       | 5 000       | 10 000     |
| <b>Without Buffer</b>   | A200003    | A200004    | A200006     | A200007     | A200008    |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| • 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    |
| <b>With 10x Standard Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| • 15 mM MgCl <sub>2</sub>   | A202103    | A202104    | A202106     | A202107     | A202108    |
| • Mg <sup>2+</sup> free   | A202203    | A202204    | A202206     | A202207     | A202208    |
| • Tween free  | A202403    | A202404    | A202406     | A202407     | A202408    |
| • Mg <sup>2+</sup> free, Tween free   | A202503    | A202504    | A202506     | A202507     | A202508    |
| <b>With 10x Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |             |             |            |
| • 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    |
| <b>With two buffers of choice and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |             |             |            |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Standard Buffer (15 mM MgCl <sub>2</sub> )  | A204103    | A204104    | A204106     | A204107     | A204108    |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Combination Buffer (15 mM MgCl <sub>2</sub> )   | A205103    | A205104    | A205106     | A205107     | A205108    |
| <b>Volume</b>   |            |            |             |             |            |
| Enzyme  | 1 x 100 μl | 2 x 100 μl | 5 x 100 μl  | 10 x 100 μl | 3 x 667 μl |
| 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   |
| 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   |

Hot Start PCR

| <b>TEMPase Hot Start DNA Polymerase 5 U/μl</b> For reaction set-up at room temperature, superior amplification and high specificity. |            |            |            |             |            |
|--|------------|------------|------------|-------------|------------|
| Units  | 500        | 1 000      | 2 500      | 5 000       | 10 000     |
| <b>Without Buffer</b>  | A220003    | A220004    | A220006    | A220007     | A220008    |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |            |             |            |
| • 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    |
| <b>With 10x Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |            |             |            |
| • 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    |
| <b>With two buffers and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |            |             |            |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>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>Volume</b>  |            |            |            |             |            |
| Enzyme   | 1 x 100 μl | 2 x 100 μl | 5 x 100 μl | 10 x 100 μl | 3 x 667 μl |
| 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   |
| Each 5x buffer if included   | 2 x 1.5 ml | 4 x 1.5 ml | 9 x 1.5 ml | 5 x 5 ml    | 10 x 5 ml  |
| 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   |

Glycerol Free Products

| <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. |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|
| Units   | 500     | 1 000   | 2 500   | 5 000   | 10 000  |
| <b>Without Buffer</b>   | A100003 | A100004 | A100006 | A100007 | A100008 |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |         |         |         |         |         |
| • 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 |
| <b>With 10x Standard Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |         |         |         |         |         |
| • 15 mM MgCl <sub>2</sub>   | A102103 | A102104 | A102106 | A102107 | A102108 |
| • Mg <sup>2+</sup> free   | A102203 | A102204 | A102206 | A102207 | A102208 |
| • Tween free  | A102403 | A102404 | A102406 | A102407 | A102408 |
| • Mg <sup>2+</sup> free, Tween free   | A102503 | A102504 | A102506 | A102507 | A102508 |
| <b>With 10x Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |         |         |         |         |         |
| • 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 |
| <b>With two buffers of choice and extra MgCl<sub>2</sub> (25 mM)</b>  |         |         |         |         |         |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Standard Buffer (15 mM MgCl <sub>2</sub> )  | A104103 | A104104 | A104106 | A104107 | A104108 |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Combination Buffer (15 mM MgCl <sub>2</sub> )   | A105103 | A105104 | A105106 | A105107 | A105108 |

| <b>Taq DNA Polymerase Glycerol Free 50 U/μl</b> For automation and freeze-drying. For routine PCR applications, which require high yield and reliable DNA amplification. |            |          |           |
|--|------------|----------|-----------|
| Units  | 25 000     | 250 000  | 2 000 000 |
| <b>Without Buffer</b>  | A490010    | A490012  | A490044   |
| <b>Volume</b>  |            |          |           |
| Enzyme   | 1 x 0.5 ml | 1 x 5 ml | 8 x 5 ml  |

| <b>TEMPase Hot Start DNA Polymerase Glycerol Free 5 U/μl</b> For automation and freeze-drying, for reaction setup at room temperature, superior amplification and high specificity. |            |            |            |             |            |
|---|------------|------------|------------|-------------|------------|
| Units   | 500        | 1 000      | 2 500      | 5 000       | 10 000     |
| <b>Without Buffer</b>   | A240003    | A240004    | A240006    | A240007     | A240008    |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |            |             |            |
| • 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    |
| <b>With 10x Combination Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |            |             |            |
| • 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    |
| <b>With two buffers and extra MgCl<sub>2</sub> (25 mM)</b>  |            |            |            |             |            |
| 10x Ammonium Buffer (15 mM MgCl <sub>2</sub> ) +<br>10x Combination Buffer (15 mM MgCl <sub>2</sub> )   | A245103    | A245104    | A245106    | A245107     | A245108    |
| <b>Volume</b>   |            |            |            |             |            |
| Enzyme  | 1 x 100 μl | 2 x 100 μl | 5 x 100 μl | 10 x 100 μl | 3 x 667 μl |
| 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   |
| 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   |

## Standard PCR Master Mix

| Reactions (50 μl)  | 100         | 500          | 2 500        | 5 000     | 10 000    |
|--|-------------|--------------|--------------|-----------|-----------|
| <b>Taq OptiMix CLEAR 2x Master Mix</b> An optimized Taq master mix with increased specificity  |             |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A370501     | A370503      | A370506      | A370507   | -         |
| <b>Taq DNA Polymerase 2x Master Mix</b> Suitable for standard tests due to reduced setup time and increased reproducibility.                             |             |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A140301     | A140303      | A140306      | A140307   | A140308   |
| • 2 mM MgCl <sub>2</sub> final conc.   | A150301     | A150303      | A150306      | A150307   | A150308   |
| <b>Taq DNA Polymerase 2x Master Mix RED</b> - for direct loading With inert red dye and stabilizers to allow direct loading to agarose and SDS DNA gels. |             |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A180301     | A180303      | A180306      | A180307   | A180308   |
| • 2 mM MgCl <sub>2</sub> final conc.   | A190301     | A190303      | A190306      | A190307   | A190308   |
| <b>Volume</b>  |             |              |              |           |           |
| 2x master mixes  | 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 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. |             |              |              |              |           |           |
|--|-------------|--------------|--------------|--------------|-----------|-----------|
| Reactions (50 μl)  | 100         | 500          | 1 000        | 2 500        | 5 000     | 10 000    |
| <b>TEMPase DNA Polymerase 2x Master Mix A</b> (based on Ammonium Buffer)   |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A230301     | A230303      | A230304      | A230306      | A230307   | A230308   |
| <b>TEMPase DNA Polymerase 2x Master Mix C</b> (based on Combination Buffer)  |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A230701     | A230703      | A230704      | A230706      | A230707   | A230708   |
| <b>TEMPase Master Mix BLUE</b> - for direct loading With inert blue dye and stabilizers to allow direct loading to agarose and SDS DNA gels.                         |             |              |              |              |           |           |
| <b>TEMPase DNA Polymerase 2x Master Mix A BLUE</b>   |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A290401     | A290403      | A290404      | A290406      | A290407   | A290408   |
| <b>TEMPase DNA Polymerase 2x Master Mix C BLUE</b>   |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc.   | A290801     | A290803      | A290804      | A290806      | A290807   | A290808   |
| <b>Volume</b>  |             |              |              |              |           |           |
| 2x master mixes  | 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 |
| MgCl <sub>2</sub> if included  | 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  |

## Multiplex PCR Master Mix

**Multiplex TEMPase 2x Master Mix** with extra MgCl<sub>2</sub> (25 mM) For multiplex PCR reaction setup at room temperature, allowing to apply multiple primer sets within a single tube.

| Reactions (50 µl)                    | 100         | 500          | 1 000        | 2 500        | 5 000     | 10 000    |
|--------------------------------------|-------------|--------------|--------------|--------------|-----------|-----------|
| • 3 mM MgCl <sub>2</sub> final conc. | A260301     | A260303      | A260304      | A260306      | A260307   | A260308   |
| <b>Volume</b>                        |             |              |              |              |           |           |
| 2x master mixes                      | 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 |
| MgCl <sub>2</sub>                    | 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  |

## GC-rich PCR

**GC-rich DNA Target Kit:** TEMPase Hot Start DNA Polymerase with two special buffers and extra MgCl<sub>2</sub> (25 mM)  
Optimized to successfully amplify difficult GC-rich DNA targets that regular master mixes cannot.

| Units                              | 500        |
|------------------------------------|------------|
| 4x GC Buffer I and 4x GC Buffer II | A227103    |
| <b>Volume</b>                      |            |
| Enzyme                             | 1 x 100 µl |
| Each 10x buffer if included        | 1 x 1.5 ml |
| Each 5x buffer if included         | 2 x 1.5 ml |
| MgCl <sub>2</sub> if included      | 1 x 1.5 ml |

**GC-rich TEMPase Master Mix** Optimized to successfully amplify difficult GC-rich DNA targets that regular master mixes cannot.

| Reactions (50 µl)                      | 100         | 500          | 1 000        | 2 500        | 5 000     | 10 000    |
|--|-------------|--------------|--------------|--------------|-----------|-----------|
| <b>GC TEMPase 2x Master Mix I</b>      |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc. | A331701     | A331703      | A331704      | A331706      | A331707   | A331708   |
| <b>GC TEMPase 2x Master Mix II</b>     |             |              |              |              |           |           |
| • 1.5 mM MgCl <sub>2</sub> final conc. | A332701     | A332703      | A332704      | A332706      | A332707   | A332708   |
| <b>Volume</b>                          |             |              |              |              |           |           |
| 2x master mixes                        | 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 |
| MgCl <sub>2</sub> if included          | 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  |

## High Fidelity PCR

**AQ97 High Fidelity DNA Polymerase 2 U/µl** High fidelity proofreading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.

| Units   | 100        | 500        | 1 000      | 2 500       |
|---|------------|------------|------------|-------------|
| With 5x AQ97 Buffer and extra MgCl <sub>2</sub> (25 mM) | A767501    | A767503    | A767504    | A767506     |
| <b>Volume</b>   |            |            |            |             |
| Enzyme  | 1 x 50 µl  | 1 x 250 µl | 2 x 250 µl | 5 x 250 µl  |
| Buffer  | 2 x 1.5 ml | 4 x 1.5 ml | 8 x 1.5 ml | 18 x 1.5 ml |
| MgCl <sub>2</sub>                                       | 1 x 1.5 ml | 1 x 1.5 ml | 2 x 1.5 ml | 5 x 1.5 ml  |

**AQ97 HiFi 2x Master Mix** High fidelity proofreading DNA Polymerase featuring robust amplification on AT-rich, GC-rich and long DNA targets. Recommended for cloning and mutagenesis.

| Reactions (50 µl)       | 100         | 500          | 2 500        | 5 000     |
|-------------------------|-------------|--------------|--------------|-----------|
| AQ97 HiFi 2x Master Mix | A770201     | A770203      | A770206      | A770207   |
| <b>Volume</b>           |             |              |              |           |
| 2x master mix           | 2 x 1.25 ml | 10 x 1.25 ml | 50 x 1.25 ml | 25 x 5 ml |

**AQ97 Hot Start High Fidelity DNA Polymerase 2 U/µl** 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.

| Units   | 100        | 500        | 1 000      | 2 500       |
|---|------------|------------|------------|-------------|
| With 5x AQ97 Buffer and extra MgCl <sub>2</sub> (25 mM) | A787501    | A787503    | A787504    | A787506     |
| <b>Volume</b>   |            |            |            |             |
| Enzyme  | 1 x 50 µl  | 1 x 250 µl | 2 x 250 µl | 5 x 250 µl  |
| Buffer  | 2 x 1.5 ml | 4 x 1.5 ml | 8 x 1.5 ml | 18 x 1.5 ml |
| MgCl <sub>2</sub>                                       | 1 x 1.5 ml | 1 x 1.5 ml | 2 x 1.5 ml | 5 x 1.5 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. |             |              |              |              |
| Reactions (50 µl)  | <b>100</b>  | <b>500</b>   | <b>2 500</b> | <b>5 000</b> |
| AQ97 HiFi Hot Start 2x Master Mix  | A790901     | A790903      | A790906      | A790907      |
| <b>Volume</b>  |             |              |              |              |
| 2x master mix  | 2 x 1.25 ml | 10 x 1.25 ml | 50 x 1.25 ml | 25 x 5 ml    |

|   |             |              |              |             |
|---|-------------|--------------|--------------|-------------|
| <b>AQ97 HiFi Hot Start 2x Master Mix RED</b> Ideal for cloning or amplification of difficult/long amplicons. Reaction setup can be performed at room temperature. With inert red dye and stabilizers to allow direct loading to agarose gels. |             |              |              |             |
| Reactions (50 µl)   | <b>100</b>  | <b>500</b>   | <b>2500</b>  | <b>5000</b> |
| AQ97 HiFi Hot Start 2x Master Mix RED   | A810801     | A810803      | A810806      | A810807     |
| <b>Volume</b>   |             |              |              |             |
| 2x master mix   | 2 x 1.25 ml | 10 x 1.25 ml | 50 x 1.25 ml | 25 x 5 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. |            |            |              |              |
| Units  | <b>250</b> | <b>500</b> | <b>1 000</b> | <b>2 500</b> |
| Without Buffer   | A210002    | A210003    | A210004      | A210006      |
| <b>With 10x Ammonium Buffer and extra MgCl<sub>2</sub> (25 mM)</b>   |            |            |              |              |
| • 15 mM MgCl <sub>2</sub>  | A211102    | A211103    | A211104      | A211106      |
| • Mg <sup>2+</sup> free  | A211202    | A211203    | A211204      | A211206      |
| • Tween free   | A211402    | A211403    | A211404      | A211406      |
| • Mg <sup>2+</sup> free, Tween free  | A211502    | A211503    | A211504      | A211506      |
| <b>Volume</b>  |            |            |              |              |
| Enzyme   | 1 x 100 µl | 1 x 200 µl | 2 x 200 µl   | 5 x 200 µl   |
| Each buffer if included  | 1 x 1.5 ml | 1 x 1.5 ml | 2 x 1.5 ml   | 5 x 1.5 ml   |
| 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   |

## Genotyping

|   |             |             |
|---|-------------|-------------|
| Reactions (100 µl)  | <b>100</b>  | <b>500</b>  |
| <b>Q-Extract DNA Extraction PCR Kit*</b> The optimal solution for genotyping incl. easy DNA extraction.           |             |             |
| • With Taq DNA Polymerase 2x Master Mix RED   | A570001     | A570004     |
| <b>Q-Extract DNA Extraction Hot Start PCR Kit*</b> The optimal solution for genotyping incl. easy DNA extraction. |             |             |
| • With TEMPase Hot Start DNA Polymerase 2x Master Mix A BLUE  | A574401     | A574404     |
| <b>Volume</b>   |             |             |
| Q-Extract DNA Extraction Solution   | 1 x 10 ml   | 5 x 10 ml   |
| Enzyme  | 1 x 1.25 ml | 5 x 1.25 ml |

\*Q-Extract DNA Extraction Solution is also available as a separate product. See page 7.

## Lyophilized PCR

|  |            |              |              |
|--|------------|--------------|--------------|
| Reactions (25 µl)  | <b>500</b> | <b>1 000</b> | <b>2 500</b> |
| <b>DryTech TEMPase 5x Master Mix Clear</b> with 5x DryTech Buffer Clear<br>Lyophilized TEMPase Master Mix for reaction setup at room temperature. Shipping at ambient temperature. |            |              |              |
| 2 mM MgCl <sub>2</sub> final conc.   | A747203    | A747204      | A747206      |
| <b>DryTech TEMPase 5x Master Mix Green</b> with 5x DryTech Buffer Green<br>Lyophilized TEMPase Master Mix with green dye for direct loading. Shipping at ambient temperature.      |            |              |              |
| 2 mM MgCl <sub>2</sub> final conc.   | A747303    | A747304      | A747306      |
| <b>Volume</b>  |            |              |              |
| 5x master mixes  | 4 vials    | 8 vials      | 20 vials     |
| 5x buffer  | 2 x 1.3 ml | 4 x 1.3 ml   | 10 x 1.3 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). |            |              |
| Reactions (25 µl)  | <b>400</b> | <b>4 000</b> |

| Green         |  |         |         |
|---------------|--|---------|---------|
| • Without ROX |  | A323402 | A323406 |
| • Low ROX     |  | A324402 | A324406 |
| • High ROX    |  | A325402 | A325406 |

| for Probe     |  |             |              |
|---------------|--|-------------|--------------|
| • Without ROX |  | A313402     | A313406      |
| • Low ROX     |  | A314402     | A314406      |
| • High ROX    |  | A315402     | A315406      |
| Volume        |  |             |              |
| 2x Master Mix |  | 4 x 1.25 ml | 40 x 1.25 ml |

| RealQ Fast 2x Master Mix 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. |             |              |              |              |
|---|-------------|--------------|--------------|--------------|
| Reactions (25 µl)   | 500         | 1000         | 2500         | 5 000        |
| RealQ Fast 2x Master Mix, Green   | A463403     | A463404      | A463411      | A463412      |
| Volume  |             |              |              |              |
| 2x Master Mix   | 5 x 1.25 ml | 10 x 1.25 ml | 25 x 1.25 ml | 50 x 1.25 ml |

## RT-PCR

| One-step RT qPCR Kit Sensitive detection of low-copy RNA templates including virus RNA |             |             |             |  |
|--|-------------|-------------|-------------|--|
| Reactions (20 µl)  | 100         | 200         | 2 000       |  |
| • With 4x qPCR Mix, 20x RT Mix and ROX   | A833301     | A833302     | A833305     |  |
| Volume   |             |             |             |  |
| 20x RT Mix   | 1 x 0.1 ml  | 1 x 0.2 ml  | 10 x 0.2 ml |  |
| 4x RT qPCR Mix   | 1 x 0.5 ml  | 1 x 1.0 ml  | 10 x 1.0 ml |  |
| ROX internal reference dye   | 1 x 0.05 ml | 1 x 0.05 ml | 2 x 0.05 ml |  |

## Nucleotides

| dNTP Mix: 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  |
| Volume  |            |            |          |          |
| dNTP Mix  | 2 x 0.5 ml | 8 x 0.5 ml | 2 x 1 ml | 5 x 1 ml |

| dNTP Set: One tube of each dATP, dCTP, dGTP and dTTP, 100 mM each |             |             |              |          |
|---|-------------|-------------|--------------|----------|
|   | A511104     | A511107     | A511109      | A511120  |
| Volume  |             |             |              |          |
| 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        |

| Single dNTPs: One tube of one specific dNTP |  |  |             |
|---|--|--|-------------|
| dATP, 100 mM                                |  |  | A521102     |
| dCTP, 100 mM                                |  |  | A521202     |
| dGTP, 100 mM                                |  |  | A521302     |
| dTTP, 100 mM                                |  |  | A521402     |
| Volume                                      |  |  |             |
| dNTP  |  |  | 1 x 0.25 ml |

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

| 10x Ammonium Buffer       |         |         |         |
|---------------------------|---------|---------|---------|
| • 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  |
| • Tween free                        | A302403    | A302410     | A302456  |
| • Mg <sup>2+</sup> free, Tween 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>                       |            |             |          |
| Buffers and MgCl <sub>2</sub>       | 3 x 1.5 ml | 10 x 1.5 ml | 6 x 5 ml |

## Buffer Kits

|   |  |            |         |
|---|--|------------|---------|
| <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 1.5 ml | A306101 |
| • Mg <sup>2+</sup> free   |  | 4 x 1.5 ml | A306201 |
| • Tween free  |  | 4 x 1.5 ml | A306401 |
| • Mg <sup>2+</sup> free, Tween free   |  | 4 x 1.5 ml | A306501 |

\* 5x PCR Buffer RED is also included.

## Water

|   |          |            |            |             |
|---|----------|------------|------------|-------------|
| <b>H<sub>2</sub>O</b>                     |          |            |            |             |
| PCR Grade Water                           | A360056  | -          | A360042    | A360044     |
| Nuclease-Free Water for molecular biology | -        | A340037    | A340042    | A340044     |
| <b>Volume</b>                             |          |            |            |             |
| H <sub>2</sub> O                          | 6 x 5 ml | 1 x 100 ml | 1 x 500 ml | 1 x 1000 ml |

## PCR Accessories

|  |  |            |         |
|--|--|------------|---------|
| <b>Enhancers</b>                                   |  |            |         |
| Betaine Enhancer Solution 5 M                      |  | 5 x 1 ml   | A351104 |
| <b>Additives</b>                                   |  |            |         |
| 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 |  |            |         |
| 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 |
| 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 |

## DNA/RNA extraction

|   |            |            |
|---|------------|------------|
| <b>Q-Extract DNA Extraction Solution*</b> |            |            |
| Reactions (100 µl)                        | <b>100</b> | <b>500</b> |

|                                      |           |           |
|--------------------------------------|-----------|-----------|
| <b>Fast and easy DNA extraction.</b> | A560001   | A560004   |
| <b>Volume</b>                        |           |           |
| Q-Extract Extraction Solution        | 1 x 10 ml | 5 x 10 ml |

\*Q-Extract DNA Extraction is also available as a kit including either Taq DNA Polymerase 2x Master Mix RED or TEMPase Hot Start DNA Polymerase 2x Master Mix A BLUE. See Genotyping page 5.

|   |   |                |                |                 |
|---|---|----------------|----------------|-----------------|
| <b>G2 DNA/RNA Enhancer</b>              | For increased DNA and RNA extraction yield. Well suited for difficult matrices e.g. clay and wine |                |                |                 |
| <b>Reactions</b>                        | <b>10</b>   | <b>25</b>      | <b>50</b>      | <b>100</b>      |
| <b>G2 Enhancer Solution</b>             |   |                |                |                 |
| • G2 DNA/RNA Enhancer Solution - Liquid | A420015   | -              | A420025        | A420035         |
| <b>G2 Enhancer Beads</b>                |   |                |                |                 |
| • G2 DNA/RNA Enhancer beads 0.1 mm      | A420110   | A420125        | A420150        | A420100         |
| • G2 DNA/RNA Enhancer beads 1.4 mm      | A421410   | A421425        | A421450        | A421400         |
| <b>Volume/format</b>                    |   |                |                |                 |
| G2 DNA/RNA Enhancer Solution - Liquid   | 1 x 5 ml  | -              | 5 x 5 ml       | 10 x 5 ml       |
| G2 DNA/RNA Enhancer beads               | 10 x 2 ml vial  | 25 x 2 ml vial | 50 x 2 ml vial | 100 x 2 ml vial |

## PCR Clean-Up

|                                  |            |            |              |              |
|----------------------------------|------------|------------|--------------|--------------|
| <b>PureIT ExoZAP PCR CleanUp</b> |            |            |              |              |
| <b>Reactions (2 µl)</b>          | <b>100</b> | <b>500</b> | <b>2 500</b> | <b>5 000</b> |
| <b>One-step PCR clean-up</b>     | A620601    | A620603    | A620606      | A620607      |
| <b>Volume</b>                    |            |            |              |              |
| PureIT ExoZAP                    | 1 x 0.2 ml | 1 x 1 ml   | 5 x 1 ml     | 10 x 1 ml    |