

Real-time PCR master mixes and instrument compatibility

| Applications                            | TaqMan and TaqPath real-time PCR master mixes |                           |                                 |                                |                                   |                              |                            |                                      | One-step real-time RT-PCR master mixes  |   |  |   |   |  |
|---|---|---------------------------|---------------------------------|--------------------------------|-----------------------------------|------------------------------|----------------------------|--------------------------------------|---|---|--|---|---|--|
|   | Gene expression/<br>small RNA                 | Genotyping/<br>CNV        | Gene expression/<br>genotyping  | Gene expression/<br>genotyping | Gene expression                   | Genotyping/<br>SNP           | Genotyping/<br>SNP         | Gene expression                      | Gene expression/<br>pathogen detection  | Gene expression/<br>pathogen detection            | Gene expression/<br>pathogen detection | Gene expression/<br>for 1-step and<br>multiplex | Gene expression/<br>pathogen detection        | Gene expression/<br>pathogen detection               |
|   | TaqMan Fast Advanced Master Mix               | TaqPath ProAmp Master Mix | TaqMan Universal PCR Master Mix | TaqMan Universal Master Mix II | TaqMan Gene Expression Master Mix | TaqMan Genotyping Master Mix | TaqMan GTXpress Master Mix | TaqMan Fast Universal PCR Master Mix | TaqMan RNA-to-C <sub>T</sub> 1-Step Kit | Power SYBR Green RNA-to-C <sub>T</sub> 1-Step Kit | TaqMan Fast Virus 1-Step Master Mix    | TaqPath 1-Step Multiplex Master Mix             | SuperScript III Platinum One-Step qRT-PCR Kit | SuperScript III Platinum One-Step qRT-PCR Kit w/ ROX |
|   | 4444556                                       | A32704                    | 4304437                         | 4440043                        | 4370048                           | 4371353                      | 4403311                    | 4352042                              | 4392653                                 | 4391178   | 4444432                                | A28521  | 11732020                                      | 11745500   |
|   | 4444557                                       | A30865                    | 4305719                         | 4440040                        | 4369016                           | 4371355                      | 4401892                    | 4364103                              | 4392938                                 | 4389986   | 4444434                                | A28522  | 11732088                                      | 11745100   |
|   | 4444963                                       | A30866                    | 4318157                         | 4440047                        | 4369514                           | 4381656                      | 4401890                    | 4366072                              | 4392656                                 |   | 4444436                                | A28523  |   |  |
|   | 4444964                                       | A30871                    | 4326708                         | 4440048                        | 4369510                           | 4371357                      | 4401857                    | 4366073                              |   |   |  | A28525  |   |  |
|   | 4444965                                       | A30867                    | 4364338                         | 4440049                        | 4369542                           | 4381657                      |                            | 4367846                              |   |   |  | A28526  |   |  |
|   | 4444558                                       | A30872                    | 4364340                         | 4440041                        | 4370074                           |                              |                            |                                      |   |   |  | A28527  |   |  |
|   |   | A32705                    | 4324018                         | 4440042                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
|   |   | A30868                    | 4324020                         | 4440038                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
|   |   | A30869                    | 4326614                         | 4440044                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
|   |   | A30873                    | 4364341                         | 4440045                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
|   |   | A30870                    | 4364343                         | 4440046                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
|   |   | A30874                    |                                 | 4440039                        |                                   |                              |                            |                                      |   |   |  |   |   |  |
| Instruments                             |   |                           |                                 |                                |                                   |                              |                            |                                      |   |   |  |   |   |  |
| Analytik Jena qTOWER                    | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems 7500                 | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems 7500 Fast            | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems 7300                 | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √*  | √   | √  |
| Applied Biosystems 7900HT               | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √*  | √   | √  |
| Applied Biosystems QuantStudio 12K Flex | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems QuantStudio 6        | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems QuantStudio 3/5      | √   | √*                        | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √*  | √   | √  |
| Applied Biosystems QuantStudio 7        | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Applied Biosystems StepOne              | √   | *                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | *   | √   | √  |
| Applied Biosystems StepOnePlus          | √   | *                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | *   | √   | √  |
| Applied Biosystems ViiA 7               | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad CFX384                          | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad CFX96                           | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad iQ5                             | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad MiniOpticon                     | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad/MJ Chromo4                      | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad/MJ Opticon                      | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Bio-Rad/MJ Opticon 2                    | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Eppendorf Mastercycler ep realplex      | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Qiagen/Corbett Rotor-Gene 6000          | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Qiagen/Corbett Rotor-Gene Q             | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Qiagen/Corbett Rotor-Gene 3000          | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Roche LightCycler 480                   | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Roche LightCycler Nano                  | ◊   | ◊                         | ◊                               | ◊                              | ◊                                 | ◊                            | ◊                          | ◊                                    | ◊                                       | ◊   | ◊                                      | ◊   | ◊   | ◊  |
| Agilent/Stratagene MX3000P              | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Agilent/Stratagene MX3005P              | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| Agilent/Stratagene MX4000               | √   | √                         | √                               | √                              | √                                 | √                            | √                          | √                                    | √                                       | √   | √                                      | √   | √   | √  |
| TaKaRa T800                             | ◊   | ◊                         | ◊                               | ◊                              | ◊                                 | ◊                            | ◊                          | ◊                                    | ◊                                       | √   | ◊                                      | ◊   | ◊   | ◊  |

√ – Indicates preferred kit and tested on this instrument.

√\* – Ensure primer concentration guide is followed (<200 nM for standard mode and 300–400 nM for fast mode). For StepOne/StepOnePlus systems, install software version 2.3 or higher.

◊ – Indicates kit should work, but has not been tested on this instrument.

\* – Not compatible with multiplexing. The QuantStudio 3 system can be used for limited multiplexing; it is not compatible with Mustang Purple or Cy5 dyes. The QuantStudio 5 system is compatible with multiplexing.

## Real-time PCR master mixes and instrument compatibility

### SYBR Green real-time PCR master mixes

| Applications                            | Gene expression                                      |  |  |  |                                      |  |  |
|---|--|--|--|--|--------------------------------------|--|--|
|   | SYBR Select Master Mix                               | Fast SYBR Green Master Mix                           | Power SYBR Green PCR Master Mix                      | SYBR Green PCR Master Mix                            | SYBR GreenER qPCR SuperMix Universal | PowerUp SYBR Green Master Mix                                  | PowerTrack SYBR Green Master Mix               |
|   | 4472903, 4472908, 4472913, 4472918, 4472919, 4472920 | 4385610, 4385612, 4385616, 4385617, 4385618, 4385614 | 4367659, 4367660, 4368577, 4368702, 4368706, 4368708 | 4344463, 4309155, 4364344, 4364346, 4334973, 4312704 | 1176202K, 11762100, 11762500         | A25742, A25743, A25776, A25777, A25778, A25779, A25780, A25918 | A46012, A46109, A46110, A46111, A46112, A46113 |
| <b>Instruments</b>                      |  |  |  |  |                                      |  |  |
| Applied Biosystems 7500                 | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems 7500 Fast            | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems 7300                 |  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems 7900HT               |  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems QuantStudio 12K Flex | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems QuantStudio 6        | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems QuantStudio 3/5      | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems QuantStudio 7        | √  | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems StepOne              | √*   | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems StepOnePlus          | √*   | √  | √  | √  | √                                    | √  | √  |
| Applied Biosystems ViiA 7               | √  | √  | √  | √  | √                                    | √  | √  |
| Bio-Rad CFX384                          | √  | √  | √  | ∅  | ∅                                    | √  | √  |
| Bio-Rad CFX96                           | √  | √  | √  | ∅  | ∅                                    | √  | √  |
| Bio-Rad iQ5                             | √  | √  | √  | √  |                                      | √  | √  |
| Bio-Rad MiniOpticon                     | √  | √  | √  | √  | √                                    | √  | √  |
| Bio-Rad/MJ Chromo4                      | √  | √  | √  | √  | √                                    | √  | √  |
| Bio-Rad/MJ Opticon                      | √  | √  | √  | √  | √                                    | √  | √  |
| Bio-Rad/MJ Opticon 2                    | √  | √  | √  | √  | √                                    | √  | √  |
| Eppendorf Mastercycler ep realplex      |  | √  | √  | √  | √                                    | √  | √  |
| Qiagen/Corbett Rotor-Gene 6000          | √*   | √  | √  | √  | √                                    | √  | √  |
| Qiagen/Corbett Rotor-Gene Q             | √*   | √  | √  | √  | ∅                                    | √  | √  |
| Qiagen/Corbett Rotor-Gene 3000          | √*   | √  | √  | √  | ∅                                    | √  | √  |
| Roche LightCycler 480                   | √  | √  | √  | √  |                                      | √  | √  |
| Roche LightCycler Nano                  |  | ∅  | ∅  | ∅  |                                      | ∅  | ∅  |
| Agilent/Stratagene MX3000P              | √  | √  | √  | √  | √                                    | √  | √  |
| Agilent/Stratagene MX3005P              | √  | √  | √  | √  | √                                    | √  | √  |
| Agilent/Stratagene MX4000               | √  | √  | √  | √  | √                                    | √  | √  |
| TaKaRa T800                             |  | √  | √  | √  |                                      | √  | √  |

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√\* – Ensure primer concentration guide is followed (<200 nM for standard mode and 300–400 nM for fast mode). For StepOne/StepOnePlus systems, install software version 2.3 or higher.

∅ – Indicates kit should work, but has not been tested, on this instrument.

Find out more at [thermofisher.com/mastermixes](https://thermofisher.com/mastermixes)