

Primerdesign Master Mixes



Suitable across all sectors
and for all qPCR applications

Master Mixes

Our range of sensitive and accurate Master Mixes offer unique enzyme/buffer combinations that allow you to get the best from your testing. Whether you are looking for fast results, optimal multiplexing capability, or simply a reliable cost-effective testing process, our Master Mixes are developed to suit you and your testing requirements.



| | Precision Plus | Precision Plus OneStep | Precision FAST | oasig Standard | oasig OneStep | oasigPLUS |
|---------------------|--|---|-------------------------------------|--|--------------------|-------------------------------------|
| Application | Gene expression analysis (cDNA). Speciation testing. DNA pathogen detection | Gene expression analysis (RNA). RNA pathogen detection | Rapid screening. High throughput | Speciation testing. Pathogen detection. Multiplexing | Pathogen detection | Pathogen detection. Multiplexing |
| +SYBR Green | yes | yes | yes | n/a | n/a | n/a |
| +ROX* | yes | yes | yes | yes | yes | yes |
| Concentration | 2x | 2x | 2x | 2x | 2x | 2x |
| Target | DNA | RNA | DNA | DNA | RNA | RNA |
| Fast Cycling | n/a | n/a | yes | n/a | n/a | n/a |
| Multiplex | n/a | n/a | n/a | +++ | n/a | +++ |
| Inhibitor Resistant | n/a | n/a | n/a | + | No | + |

*Rox passive reference dye not suitable for multiplex assays above 2 targets.

For our full list of Master Mix kits please visit primerdesign.co.uk or contact enquiries@primerdesign.co.uk

Precision Range of qPCR Master Mixes

We provide scalable pack sizes (from 1ml up to 20ml) to allow you the flexibility to run small scale experiments or larger scale screening. SYBR Green can be added to our Precision range of wet Master Mixes at no additional charge, and we guarantee maintained superior data quality shipped on dry ice all over the world.

Precision Master Mix Selection Table:

Rox concentrations available premixed in all Precision Master Mixes

| Descriptor | Rox Addition | Real-Time PCR Platform |
|---------------|--------------------------------|---|
| LR | Low Rox | Applied Biosystems 7500 platform Applied Biosystems QuantStudio Applied Biosystems ViiA7 platform |
| R | Standard Rox | Applied Biosystems 7000, 7300, 7700, and 7900 StepOne, StepOnePLUS platforms Roche capillary Lightcyclers |
| MX | Medium Rox | All Stratagene platforms |
| iC | No Rox Includes fluorescein | iCycler + All other platforms not listed below |
| CL | Standard Rox | Capillary Lightcycler |
| No descriptor | No Rox added | All other platforms not listed |

PrecisionPlus qPCR Master Mix

Applications: For a variety of assays, such as gene expression studies from cDNA, pathogen detection (bacteria, fungi, DNA viruses and parasites), genotyping and genomic target detection. Compatible with SYBR Green or probe based assays.

Precision Plus is the result of carefully formulated enzyme and buffer combination resulting in an optimally performing Master Mix. Precision Plus is ideally suited to gene expression studies benefitting from the option of premixing with SYBR Green, or for easy-to-use probe-based pathogen detection. The formula has demonstrated stability to multiple freeze thaws providing you with confidence in your results.

Product Features:

- ✓ High quality, robust 2x Master Mix
- ✓ Stable against multiple freeze thaws
- ✓ Suitable for cDNA amplification or DNA pathogen detection
- ✓ Low cost
- ✓ Suitable for all qPCR machines
- ✓ Available premixed with SYBR Green at no extra cost



Available premixed with Rox.

For our full list of Master Mix kits please visit primerdesign.co.uk or contact enquiries@primerdesign.co.uk



PrecisionPlus OneStep qPCR Master Mix

Applications: Ideal for gene expression studies directly from RNA, and pathogen detection including RNA viruses. Compatible with SYBR Green or probe based assays.

Our PrecisionPLUS OneStep™ qRT-PCR Master Mix contains all the required components for a perfect one-step Real Time PCR analysis in a single reaction mix. Simply add RNA and a primer/probe mix for a complete, closed tube, one-step RNA to Ct reaction. This mix contains a modified thermostable MMLV enzyme with an optimum working temperature of 55°C and a higher affinity for primer duplex initiation sites. This increases the rate of processing and the sensitivity of detection.

The result is an RT step that is completed in less than 10 minutes and is sensitive in a linear range across the whole biological scope from very high (1x10⁹ copies) to very low (<10 copies) RNA copy numbers. An RNase inhibitor is included to protect the sample from potential degradation.

Product Features:

- ✓ Convenient one-step, closed tube reaction
- ✓ Rapid protocol - includes 10 minute RT step
- ✓ Ideal for RNA pathogen detection
- ✓ Reduced handling/set up time
- ✓ Reduced risk of contamination
- ✓ Available premixed with SYBR Green at no extra cost

Available premixed with Rox.

PrecisionFAST qPCR Master Mix



Applications: Ideal for fast cycling assays requiring a quick turnaround, such as pathogen detection (bacteria, fungi, DNA viruses) and genomic or cDNA target detection. Compatible with SYBR Green or probe-based assays.

Our PrecisionFAST Master Mix provides qPCR data in as little as **40 minutes!** Rapid cycling protocols reducing turnaround time to results. The Taq polymerase used in our PrecisionFAST Master Mixes presents an alternative binding site with a higher affinity for DNA and therefore faster processivity. The buffer within this range is designed for optimum sensitivity and reduced artefact formation which are a common occurrence within fast processing enzymes, making it a superior choice for your fast cycling assay.

Product Features:

- ✓ Ultra-fast enzyme
- ✓ qPCR data in 40 minutes – faster turnaround time
- ✓ Superior buffer allowing optimum sensitivity
- ✓ Optimised options for all qPCR machines
- ✓ Available premixed with SYBR Green at no extra cost

Available premixed with Rox.

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oasig™ Lyophilised Master Mixes

The oasig™ lyophilised Master Mixes have built on the superior quality and performance first established with the Precision Master Mixes. Lyophilisation allows a more flexible approach to qPCR set up and reagent storage for a wide range of applications across sectors.

oasig™ Standard Lyophilised Master Mix

Application: For a variety of assays such as gene expression studies from cDNA, pathogen detection (bacteria, fungi, DNA viruses, parasites), genotyping and genomic target detection. Compatible with probe-based assays.

Product Features:

- ✓ For use with DNA pathogens
- ✓ Suitable for multiplexing
- ✓ Broad detection range
- ✓ Exceptional data quality
- ✓ Suitable for all qPCR machines
- ✓ Lyophilised – no need for cold chain shipping

Available with Rox.



oasig™ OneStep Lyophilised Master Mix

Application: For a variety of assays, such as gene expression studies directly from RNA and pathogen detection (bacteria, fungi, RNA/DNA viruses, parasites). Compatible with probe-based assays.

Following resuspension, oasig™ Lyophilised OneStep Master Mix contains the required components for one-step RealTime PCR analysis in a single reaction mix. oasig™ Lyophilised OneStep Master Mix is suitable as a broad application Master mix and has demonstrated high performance in the presence of RNA extracted from clinical sample types (anterior nasal swabs, throat swabs).

Product Features:

- ✓ Convenient one-step, closed tube reaction
- ✓ For use with RNA/DNA pathogens
- ✓ Broad detection range
- ✓ Demonstrated performance with clinical samples
- ✓ Suitable for all qPCR machines
- ✓ Lyophilised – no need for cold chain shipping



Available with Rox.

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oasig™ PLUS OneStep Lyophilised Master Mix

Applications: Introduces a unique technology that eliminates RTase activity at room temperature, making this Master Mix ideal for multiplexing of RNA and DNA pathogens.

Multiplex RNA assays are of an increased risk of non-specific artefact formation (e.g. primer dimers) due to increased number of primers.

This is caused by the Reverse transcriptase (RTase), the enzyme required to drive the PCR of RNA targets, being active at room temperature during reaction setup when primers are bound in a non-specific fashion.

Addition of a unique technology that eliminates room temperature RTase activity allows the user greater freedom to prepare qPCR reactions at room temperature and set up time does not impact performance.



Product Features:

- ✓ For use with RNA and DNA assays
- ✓ Optimal multiplexing performance
- ✓ Increased sensitivity at low copy
- ✓ Improved endpoint/ reduction of artefact formation



Available with Rox.

Master Mix Ordering Information

| Catalogue No. | Product Description | Kit Size |
|------------------------------------|---|---------------------------|
| Z-PFAST-1ml; 2ml; 5ml; 10ml; 20ml | PrecisionFAST qPCR Master Mix | 1ml; 2ml; 5ml; 10ml; 20ml |
| Z-PPLUS-1ml; 2ml; 5ml; 10ml; 20ml | PrecisionPLUS qPCR Master Mix | 1ml; 2ml; 5ml; 10ml; 20ml |
| Z-OSPLUS-1ml; 2ml; 5ml; 10ml; 20ml | PrecisionPLUS OneStep RT-qPCR Master Mix | 1ml; 2ml; 5ml; 10ml; 20ml |
| Z-oasig-standard-150 | oasig Lyophilised 2X qPCR Master Mix | 150 rxn |
| Z-oasig-onestep-150 | oasig Lyophilised OneStep 2XRT-qPCR Master Mix | 150 rxn |
| R01070, R01071 | oasigPLUS OneStep Lyophilised 2X RT-qPCR Master Mix | 50, 150 rxn |

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**PRIMER
 DESIGN**



Primerdesign is part of Novacyt

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