

Primerdesign™

# **oasig™ lyophilised OneStep 2X RT-qPCR Master Mix**

Instructions for use of  
Primerdesign oasig lyophilised OneStep Master Mix

**PRIMER  
DESIGN**

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# Introduction

Primerdesign oasig lyophilised OneStep 2X RT-qPCR Master Mix is an optimised complete system for use in OneStep real-time PCR. Removal of a separate Reverse Transcription step, reduces handling errors, and greatly reduces the time taken to obtain results. The product is stable at ambient temperatures for at least 18 months and can be conveniently shipped and stored at room temperature. The master mix contains a thermo-stable TAQ Polymerase and MMLV as well as buffer, dNTPs, MgCl<sub>2</sub> and stabilisers at concentrations optimised for the enzymes. Once resuspended, only the template RNA and primer and probe mix are required to complete the experimental set up for a perfect single tube reaction. The master mix has been freeze-dried to produce a room temperature stable preparation.

The kit includes the lyophilised master mix, resuspension buffer and a tube of ROX dye which can be added as required when the master mix is to be used on hardware platforms that use ROX as a passive reference dye.

The performance of oasig lyophilised OneStep 2X RT-qPCR Master Mix is as good as or better than leading brands. For details see [www.primerdesign.co.uk](http://www.primerdesign.co.uk)

## The perfect partner for genesig kits

Primerdesign oasig lyophilised OneStep 2X RT-qPCR Master Mix is designed for use with our range of genesig qPCR pathogen detection kits. Together they represent the ultimate solution for convenient logistics as well as high quality qPCR performance.

## Kit contents

- 3 x lyophilised OneStep Master Mix (50 reactions per glass ampule)
- 1 x lyophilised ROX (**BROWN**)
- 4 x Resuspension buffer (**BLUE**)

## Kit storage

The Primerdesign oasig lyophilised OneStep 2X RT-qPCR Master Mix should be stored at ambient temperature on arrival. The kit is stable for at least 18 months at ambient temperature. Once resuspended in the provided buffer the kit should be stored at -20°C. Repeated freeze/thawing will not compromise the performance of the product. Under these conditions reagents are stable for six months from date of resuspension.

## Suitable sample material

All kinds of RNA sample material can be used (e.g. Viral RNA, cell culture derived RNA, Biopsy derived RNA etc). Please ensure the samples are suitable in terms of purity, concentration and RNA integrity. Always run at least one negative control with the samples. To prepare a negative-control, replace the test sample with RNase/DNase free water.

## Licensing agreement and limitations of use

PCR is covered by several patents owned by Hoffman-Roche Inc and Hoffman-LaRoche, Ltd. Purchase of Primerdesign kits does not include or provide licence with respect to any patents owned by Hoffman-La Roche or others.

## Primerdesign Ltd satisfaction guarantee

Primerdesign takes pride in the quality of all our products. Should this product fail to perform satisfactorily when used according to the protocols in this manual, Primerdesign will replace the item free of charge.

## Quality control

As part of our ISO9001 and ISO13485 quality assurance systems, all Primerdesign products are monitored to ensure the highest levels of performance and reliability.

# Resuspension protocol

## 1. For each glass ampule resuspend lyophilised OneStep Master Mix in 525µl of resuspension buffer

Do not replace the resuspension buffer with water or any other buffer.

The master mix is then ready to use as a 2X RT-qPCR master mix.

## 2. Add ROX if required

ROX is required for platforms that use ROX as a passive reference guide. Use table 1 below to see if ROX addition is required for your hardware platform. If ROX is required then follow the instructions below.

- Resuspend the lyophilised ROX (**BROWN**) in the correct volume of resuspension buffer (**BLUE**) according to table 1 below.
- Add resuspended ROX to each ampule at the correct level.

**Table 1. ROX addition**

Real-time PCR platform	ROX resuspension volume	ROX addition per ampule
Applied Biosystems 7700, 7000, and 7900, 7300 StepOne, StepOnePLUS and ViiA7 platforms, Roche capillary Lightcyclers.	100µl	20µl
All Stratagene platforms	200µl	15µl
Applied Biosystems 7500 platform	700µl	10µl
All Other machines	NOT REQUIRED	NOT REQUIRED

# OneStep RT-qPCR detection protocol

- **When using Primerdesign genesig pathogen detection kits.**

For each 20µl RT-qPCR reaction add the following to each reaction tube

Components	1 Reaction
oasig lyophilised OneStep 2X RT-qPCR Master Mix	10 µl
Primer/Probe mix	1 µl
Template RNA	x µl
RNase/DNase free water	x µl
<b>Final volume</b>	<b>20 µl</b>

- **Suggested use with user supplied primers and probe.**

For each 20µl RT-qPCR reaction add the following to each reaction tube

Components	1 Reaction
oasig lyophilised OneStep 2X RT-qPCR Master Mix	10 µl
Forward primer (3pmols*)	x µl
Reverse primer (3pmols*)	x µl
Probe (3pmols)	x µl
Template RNA	x µl
RNase/DNase free water (up to Final volume)	x µl
<b>Final volume</b>	<b>20 µl</b>

\*3pmols of primer gives a working concentration of 150nM in a 20µl reaction

# OneStep RT-qPCR amplification protocol

- For use with genesig pathogen detection kits

	Step	Time	Temp
	Reverse Transcription	10 min	55°C
	Enzyme Activation	2 min	95°C
Cycling x50	Denaturation	10s	95°C
	<b>DATA COLLECTION*</b>	60s	60°C

\*Fluorogenic data should be collected during this step through the FAM and VIC channels.