# qLUMEN™ MasterMix for qPCR (2x) with green dye

QPCR-GHR-001 / QPCR-GLR-001 / QPCR-GWR-001

## Introduction

qLUMEN™ MasterMix for qPCR, supplied in a 2X concentration, is a convenient ready to use premix to perform real-time PCR using an analogue fluorescent dye to SYBR®Green. The master mix contains all the reagent (except PCR primers and template) needed for running PCR reactions. Available with the option of ROX™ as the internal passive reference dye. The ROX™ dye provides an internal reference to which the reporter-dye signal can be normalized during data analysis.

## Features

- ✓ Ready-to-use MasterMix
- ✓ Higher specificity, sensitivity, and yield
- ✓ Available with ROX™ as reference dye
- ✓ Compatible with most real-time PCR instruments

## Applications

- ✓ Detection and quantification of DNA and cDNA targets
- ✓ Gene expression
- ✓ Low copy detection
- ✓ High throughput applications
- ✓ qPCR for post reverse transcription step

## Quality Control

Functionally tested in Real Time PCR on Applied Biosystems StepOne® Real-Time PCR System.

## Storage

The MasterMix should be stored at -20°C upon receipt. Avoid repeated freezing and thawing.

## Product use limitation

This product is developed, designed and sold exclusively for research purposes and use only. The product is not intended for diagnostics or drug development, nor is it suitable for administration to humans or animals

# Basic reaction conditions for real time PCR amplifications

1. Thaw qLUMEN™ MasterMix for qPCR (2x), template DNA, primers and nuclease-free $H_2O$ on ice. Mix each solution well.

The following protocol is recommended for a 20 µl reaction volume:

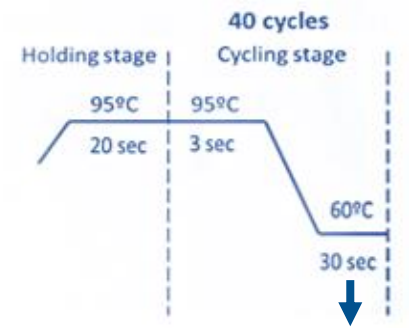
2. Set up the following reaction mixture

| Component | Reaction Volume 20 µL | Final concentration |
|---|---|---|
| qLUMEN™ MasterMix (2x) | 10 µL | 1X |
| Forward Primer | X µL | 200 nM(1) |
| Reverse Primer | X µL | 200 nM(1) |
| Template DNA | X µL | ≤500 ng /reaction (2) |
| Nuclease-Free Water to a final volume of | 20 µL | - |

(1) For optimal performance, use a minimum of 200 nM of each primer.
(2) For optimal performance, use cDNA corresponding to 1 pg to 500 ng of total RNA. For genomic DNA, do not exceed 100 ng.

3. Mix reagents completely, and then transfer to a thermocycler.
4. Program the appropriate PCR cycling protocol on your real-time PCR instrument

## Amplification protocol (for Applied Biosystems StepOne® Real-Time PCR System):




Acquire real-time fluorescence data during this step

✓ *As with all Real-Time PCR reactions, conditions may need to be optimized. You may be able to adjust your PCR conditions to optimize reaction.*