

> 2X Optimum qPCR Master Mix with SYBR® Green I

> 2X Optimum RTL qPCR Master Mix with SYBR® Green I

2X Optimum qPCR Master Mix and 2X Optimum RTL qPCR Master Mix, are two NEW 2X premixed, ready-to-use solutions (GeneSpin proprietary formulation) containing new SΔTaq Pol, dNTPs, MgCl₂ and stabilizers optimized for use in real time PCR amplification of DNA or cDNA.

Both Master Mixes offer more stability, reproducibility and tolerance to PCR inhibitors, and contain fluorescein for dynamic well factor collection. The addition of fluorescein has no effect on the PCR reaction efficiency or sensitivity of detection.

The 2X Optimum RTL qPCR Master Mix is supplemented with an inert blue dye and a separate Yellow Sample Buffer that contains a yellow dye. The qPCR reaction mix containing both components is green.

| <i>cat.no</i> | <i>amount</i> | <i>note</i> |
|---------------------|---------------|----------------------------|
| QSTS-OSMMix200 | 5ml | 2X conc. |
| QSTS-OSMMix500 | 12.5ml | 2X conc. |
| QSTS-OSMMix1000 | 25ml | 2X conc. |
| QSTS-OSMMix200 RTL | 5ml | 2X blue + 1.5ml 40X Yellow |
| QSTS-OSMMix500 RTL | 12.5ml | 2X blue + 4ml 40X Yellow |
| QSTS-OSMMix1000 RTL | 25ml | 2X blue + 8ml 40X Yellow |

FOR RESEARCH USE ONLY

SHIPPING

Shipped in green ice.

STORAGE

Store at -20C°

Avoid freeze/thaw cycles, store dark. Storage at 4 °C for up to 3 months is possible.

SHELF LIFE

12 months

FORM

liquid – liquid blue

CONCENTRATION

2X

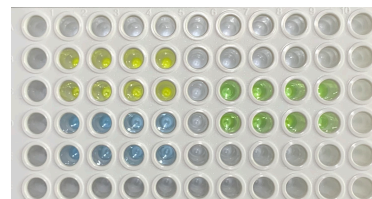
- > 2X Optimum qPCR Master Mix with SYBR® Green I
- > 2X Optimum RTL qPCR Master Mix with SYBR® Green I

2X Optimum qPCR Master Mix assay set-up:

| component | stock conc. | final conc. | 20ul reaction | 50ul reaction |
|---------------|-------------|-------------|---------------|---------------|
| 2X Master Mix | 2X | 1X | 10.0ul | 25.0ul |
| primer for | 10uM | 100-400nM | 0.2-0.8ul | 0.5-2.0ul |
| primer rev | 10uM | 100-400nM | 0.2-0.8ul | 0.5-2.0ul |
| Template | - | - | <500ng | <500ng |
| MG Water | - | - | up to 20ul | up to 50ul |

2X Optimum RTL qPCR Master Mix assay set-up:

| component | stock conc. | final conc. | 20ul reaction | 50ul reaction |
|-----------------|-------------|-------------|---------------|---------------|
| 2X Master Mix | 2X | 1X | 10.0ul | 25.0ul |
| primer for | 10uM | 100-400nM | 0.2-0.8ul | 0.5-2.0ul |
| primer rev | 10uM | 100-400nM | 0.2-0.8ul | 0.5-2.0ul |
| Yellow*Template | - | - | X ul | X ul |
| MG Water | - | - | up to 20ul | up to 50ul |



REMEBER: The green color indicates that the yellow sample A has been added into blue qPCR Master Mix

*use 40X Yellow for dilution

TEMPLATE and 40X Yellow assay set-up:

IN A FINAL qPCR REACTION OF 20ul

| | | | | |
|-------------------------------------|------|------|--------|------|
| Template volume in 20ul | 1ul | 2ul | 4ul | 5ul |
| 40X Yellow final conc. in template | 20X | 10X | 5X | 4X |
| Volume 40X Yellow in 100ul template | 50ul | 25ul | 12.5ul | 10ul |

i.e. for 5ul sample A in triplicate in 20ul reaction:
5ulx3 = 15ul sample A
15ul + 1.5ul of 40X Yellow = 16.5ul Yellow mix
Aliquot 5ul of mix for well.

REMEBER: The green color indicates that the yellow sample A has been added into blue qPCR Master Mix

Cycling conditions:

Spin down the tubes/plate briefly to remove bubbles and place them into the cycler.

| | | | |
|-----------------------------|-------------------|-----------|-----|
| denaturation | 95°C | 5 min | 1X |
| denaturation | 95°C | 10 sec | |
| annealing (1) and extension | 55-68°C | 30 sec | 40X |
| melt curve | from 65°C to 95°C | 0.5°/5sec | 1X |

1) The annealing temperature depends on the melting temperature of the primers used.