



Check the product label for actual catalog number, lot and expiry date.

ORA™ qPCR Green ROX L Mix, 2X

| CAT.# | SIZE | COMPONENTS | COMPONENT COMPOSITION | |
|---------|----------------------|---|--|--|
| QPD0101 | 200 r of | 2 x 1 ml - ORA™ qPCR Green ROX L Mix, 2X | Hot Start qPCR components: dNTPs at 0.25 mM, optimized buffer, low | |
| | 20 µl | 2 x 1 ml - PCR Water | ROX concentration. | |
| QPD0105 | 1000 r of | 10 x 1 ml - ORA™ qPCR Green ROX L Mix, 2X | Hot Start qPCR components: dNTPs at 0.25 mM, optimized buffer, low | |
| | 20 µl | 10 x 1 ml - PCR Water | ROX concentration. | |
| Storage | In the dark at -20°C | | | |

APPLICATIONS

- qPCR from gDNA, cDNA, viral DNA, low copy number genes
- Relative gene expression analysis, absolute quantification
- gPCR on instruments calibrated with low ROX conc.
- qPCR assays based on fluorescence of intercalating dye

BENEFITS

- Universal both standard and fast cycling, GC or AT rich templates
- Highest sensitivity, rapid extension, early Ct values

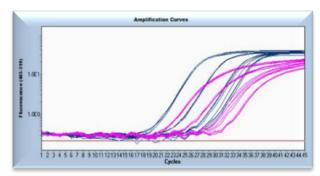
PRODUCT DETAILS

highQu qPCR mastermixes are based on the small molecular inhibitor technology Hot Start PCR allowing to achieve highest sensitivity and specificity under both standard and fast qPCR cycling conditions. They provide excellent results on both AT and GC rich templates and guaranty rapid extension with early Ct values with minimum or no optimization.

Our mastermixes are supplied with PCR Water to guaranty the best performance. To suit the broad instrument range the ORA^{TM} qPCR Green Mixes are available in different versions – with low or high ROX concentration.

PERFORMANCE

ORATM qPCR Green Mix (blue curves) provides in many cases earlier Ct values compared to competitor mastermixes. Conditions: 95 $^{\circ}$ C 2m, 40 x 95 $^{\circ}$ C 10 s & 60 $^{\circ}$ C 15 s, Roche LC480. Amplification of mouse ACTG1 from cDNA dilution series.



PROTOCOL

- Use special primer selection programs for good planning.
- Work with amplicons in a range of 80-200, max 400 bp.
- Take typical measures to prevent PCR cross over contamination, keep your bench clean, wear gloves, use sterile tubes and filter pipet tips.
- Run reactions in triplets; include a no-template control and positive control in parallel.
- Thaw and keep reagents on ice. Mix well before use.
- Do not perform annealing/extension for more than 30 seconds and do not use lower than 60 °C temperature for this step.

✓ Prepare a 20 µl reaction:

| Reverse Primer | 100-400 nM final c. | • |
|-------------------|---------------------|----|
| Forward Primer | 100-400 nM final c. | |
| cDNA Template or | <100 ng | or |
| gDNA Template | 1 µg | |
| PCR Water | to 10 μl | |
| ORA™ qPCR Mix, 2X | 10 µl | |
| | | |

- ✓ Mix gently, avoid bubbles.
- \checkmark Place into the instrument (SYBR $^{\circ}$ Green or FAM channel), set like:

| Initial denaturation | 1 cycle: 95°C - 2 min for cDNA, or |
|----------------------|------------------------------------|
| | 1 cycle: 95°C - 3 min for gDNA |
| Denaturation | 40 cycles: 95°C - 5 sec |
| Annealing/extension | 40 cycles: 60-65°C – 20-30 sec |

✓ Follow instrument instructions for melting curve analysis.

IN VITRO RESEARCH USE ONLY

For optional use, the ROX passive reference dye is premixed within the ROX L and ROX H qPCR Mixes. If the purchaser has an instrument capable of optional ROX detection and wishes to perform the optional normalization of the signal, then the user must select the option in the software.

Notice to Purchaser: With purchasing of this product, no rights are conveyed with respect to U.S. Patent: 5,928,907 and corresponding patents outside the US.