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

ORA™ Multiplex qPCR Probe Mix MP, 4X

CAT.#	SIZE	COMPONENTS	COMPONENT COMPOSITION
QPM0101	200 r of 20 µl	1 ml - ORA™ Multiplex qPCR Probe Mix MP, 4X 3 x 1 ml - PCR Water	4X concentrated qPCR master mix with Hot Start Taq DNA Polymerase, dNTPs at 0.25 mM, magnesium and optimized buffer with a passive reference dye for red channel (Cy5) detection, keeping the ROX channel free for probe dyes.
QPM0105	1000 r of 20 µl	5 x 1 ml - ORA™ Multiplex qPCR Probe Mix MP, 4X 15 x 1 ml - PCR Water	
QPM0150	5 000 r of 20 µl	5 x 5 ml - ORA™ Multiplex qPCR Probe Mix MP, 4X supplied without water	
Storage	*In the dark at -20°C.*		

APPLICATIONS

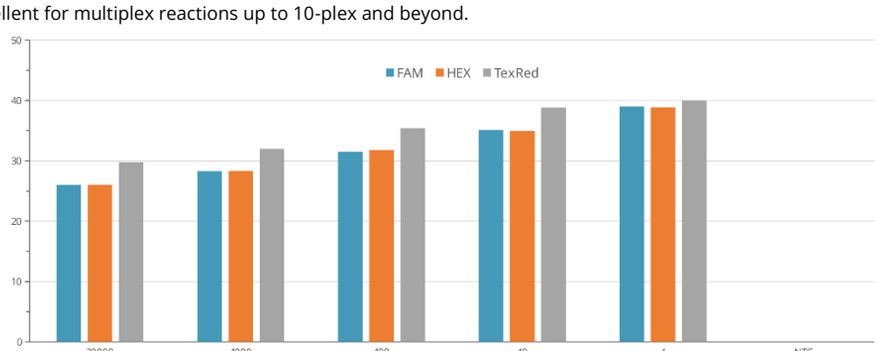
- qPCR using instruments that allow the use of the red/purple channel (650 nm, Cy5) for passive reference data collection.
- qPCR assays based on specific probes: including TaqMan®, Molecular Beacons, Scorpions™ Probes
- Quantification of gDNA, cDNA, viral DNA, low copy number genes, gene expression analysis

BENEFITS

- Developed for excellent performance in multiplex qPCR assays
- Highly concentrated for use with maximum template volume
- Purple-Red passive reference dye frees the ROX channel for probe dyes and provides flexibility when designing multiplex reactions
- Great for both single-plex and multiplexing
- Robust with all probe-based qPCR assays
- Excellent performance on GC- or AT-rich templates

PRODUCT DETAILS

The ORA™ Multiplex qPCR Probe Mix MP, 4X has been specifically designed for convenient multiplex qPCR. It can be used with all probe types and with a wide range of sample amounts, from very low-copy-number targets to abundant templates, and even with crude samples. The passive reference dye in this mix is compatible with instruments such as QuantStudio™ or ViiA™ that use the red/purple channel (650 nm, Cy5) for passive reference data collection. This frees the ROX channel for probe dyes such as Texas Red® or CAL Fluor® Red 610 and provides more flexibility when designing multiplex qPCR reactions.
This hot-start qPCR master mix includes PCR enhancers and is formulated to provide robust performance on multiple targets under the same reaction conditions, making it excellent for multiplex reactions up to 10-plex and beyond.



ORA™ Multiplex qPCR Probe Mix MP – successful 3-plex reactions across various template dilutions
Passive reference data collection on the Cy5 channel, enabled by ORA™ Multiplex qPCR Probe Mix MP, allows for more reliable target signal collection in the Texas Red channel. 3-plex reactions on a cDNA dilution series: 20000, 4000, 400, 40, 4 and NTC. Target A (FAM), target B (HEX), target C (TexRed). Passive reference using the Cy5 channel (MP instead of ROX). Cycling: 95 °C 2 min (initial denaturation), followed by 50 two-step cycles of 95 °C 15 s (denaturation) and 60 °C 30 s (annealing/extension).

PROTOCOL

- Cy5 or similar probe dyes are not recommended with this mix, as they result in a background signal.
- Use primer design software for good assay planning.
- Work with amplicons of 80-200 bp (max. 400 bp).
- Take typical measures to prevent PCR cross-contamination: keep your bench clean, wear gloves, use sterile tubes and filter pipette tips.
- Run reactions in triplicate; include a no-template control and a positive control in parallel.
- Thaw and keep reagents on ice. Mix very well before use.
- Do not perform annealing/extension for longer than 30 seconds or at temperatures below 60 °C.
- An initial template dilution series to determine the best template amount is highly recommended for each new system.
- Optimize new primer and probe concentrations within 400-1000 nM and 150-500 nM, respectively.

✓ Prepare a 20 µl reaction:

Reverse Primer	~500 nM final concentration
Forward Primer	~500 nM final concentration
Specific Probe	~300 nM final concentration
cDNA Template *or* gDNA Template	<100 ng or 1 µg adjusted in 2-5 µl sample volume
PCR Water	to 15 µl
ORA™ Multiplex qPCR Probe Mix MP, 4X	5 µl

✓ Mix gently, avoid bubbles.

✓ Place into the instrument and set as follows:

Initial denaturation	1 cycle: 95°C - 3 min
Denaturation	40-50 cycles: 95°C - 10 sec
Anneal./extension	40-50 cycles: 60-65°C – 20-30 sec

✓ Use the Cy5 channel for passive reference data collection.

IN VITRO RESEARCH USE ONLY

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