

# MP qPCR Master Mix (2x)



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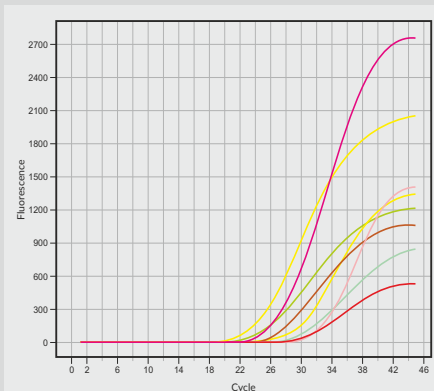
# MP qPCR Master Mix (2x)

MP qPCR Master Mix (2x) is a universal solution for quantitative, multiplex real-time PCR and two-step real-time RT-PCR using sequence-specific probes and can be used on most real-time PCR cyclers available. Depending on the real-time cycler used, up to 5 targets can be quantified simultaneously in the same well or tube.

The master mix consists of recombinant Hot Start polymerase, optimized reaction buffer and dNTPs. Use of the "hot start" enzyme prevents extension of misprimed products and primer-dimers during reaction setup leading to higher specificity and sensitivity of PCR reactions and enables convenient room temperature reaction setup.

MP qPCR Master Mix (2x) contains dUTP, which partially replaces dTTP. It allows the optional use of a uracil-N-glycosylase (UNG) to prevent carryover contamination between reactions. UNG removes uracil from any dU-containing contaminating amplicons, leaving abasic sites and making DNA molecules susceptible to hydrolysis during the initial denaturation step.

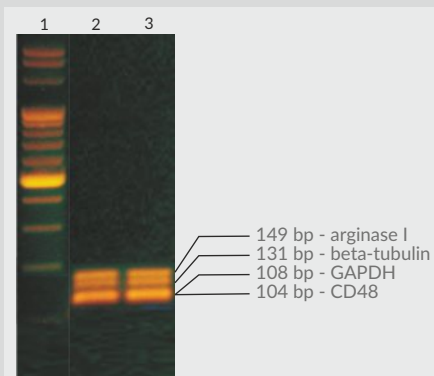
There are two variants of the kit: without ROX and with ROX Solution provided separately. The use of ROX passive reference dye is necessary for all real-time PCR cyclers from Applied Biosystems and optional for cyclers from Stratagene.



Multiplex, probe-based real-time PCR with UNG pretreatment was carried out using EURx MP qPCR Master Mix (2x). Primers and probes (labeled with FAM, HEX, Texas-Red, Cy5) specific for human beta-tubulin, GAPDH, CD48 and arginase I were used respectively. Reactions were run using human leukocyte cDNA (3 ng and 0.1 ng). PCR efficiency was above 85% for all reactions. Fluorescent curves: yellow - CD48, pink - GAPDH, green - beta-tubulin, red - arginase I.

MP qPCR Master Mix (2x) (reaction vol. 25 µl)	Cat. No.		
	E0424-01 100 reactions	E0424-02 200 reactions	E0424-03 1000 reactions
MP qPCR Master Mix (2x)	1 x 1.25 ml	2 x 1.25 ml	10 x 1.25 ml
Thermolabile UNG (uracil-N-glycosylase) 1 u/µl	30 µl	55 µl	270 µl
Water, nuclease free	1 x 1.25 ml	2 x 1.25 ml	10 x 1.25 ml

MP qPCR Master Mix (2x), plus ROX Solution (reaction vol. 25 µl)	Cat. No.		
	E0425-01 100 reactions	E0425-02 200 reactions	E0425-03 1000 reactions
MP qPCR Master Mix (2x)	1 x 1.25 ml	2 x 1.25 ml	10 x 1.25 ml
ROX Solution, 25 µM	55 µl	110 µl	530 µl
Thermolabile UNG (uracil-N-glycosylase) 1 u/µl	30 µl	55 µl	270 µl
Water, nuclease free	1 x 1.25 ml	2 x 1.25 ml	10 x 1.25 ml



Gel analysis of multiplex real-time PCR using EURx MP qPCR Master Mix (2x) as outlined above.

**Lane 1:** EURx Perfect 100 bp DNA Ladder (cat. no. E3134).

**Lanes 2, 3:** Duplicate reactions for 3 ng of human leukocyte cDNA.