iQ™ Supermix

100 x 50 µl reactions	170-8860
500 x 50 µl reactions	170-8862
1,000 x 50 µl reactions	170-8864

For research purposes only
Store at -20°C

Storage and Stability

Store the iQ Supermix at -20°C in a constant temperature freezer. Avoid repeated freeze/thaw cycles. When stored under these conditions the supermix is stable for one year after ship date. You may aliquot the supermix and store a portion at 4°C for ready use. At 4°C the supermix is stable for six months.

Kit Contents

iQ Supermix is a 2X mix for real-time PCR applications, containing a proprietary buffer and stabilizers specifically optimized for qPCR using fluorescent-labeled probes for detection. This mix provides the highest level of specificity to reduce the occurrence or delay the detection of primer-dimer and other non-specific artifacts. The antibody-mediated hot-start iTaq™ DNA polymerase is activated after an initial three minute denaturation step at 95°C.

Reagent	Kit Size	Volume	Description
iQ SYBR Green (Violet Cap)	100 reactions 500 reactions 1,000 reactions	1.25 ml x 2 1.25 ml x 10 1.25 ml x 20	2X reaction buffer with dNTPs, iTaq DNA polymerase, 6 mM $MgCl_2$, and stabilizers

iQ Supermix comes optimized for real-time PCR applications. If you would like to have extra $MgCl_2$, a 50 mM $MgCl_2$ solution is available free of charge upon request. Please request catalog number 170-8872 for 1.25 ml of this solution.

Quality Control

The iQ Supermix is free of contaminating DNase, RNase, exonuclease, and protease activities.

Functionally, the iQ supermix gives a dose response over four logs of input genomic DNA concentration (500 ng to 50 pg) in a real-time PCR assay using a single-copy gene, IL-1β.

Reaction Set Up

Thaw all components at room temperature. Mix vigorously, and the centrifuge to collect contents to the bottom of the tube before using.

Component	Volume per reaction	Final concentration
iQ Supermix	25 µl	1X
Primer 1	x µl	100 nM–500 nM
Primer 2	x µl	100 nM–500 nM
Probe	x µl	100 nM–500 nM
Sterile water	x µl	
DNA template	x µl	
Total Volume	50 µl	

Reagents and Materials Not Supplied

Microcentrifuge tubes, screw capped
Pipette tips, preferably aerosol barrier tips
Vortexer
Microcentrifuge
Optical plates/tubes
Sterile water
Reaction primers and probes
Real-time PCR detection system

Recommendations for Optimal Results

Due to the sensitivity of quantitative PCR, results can be easily affected by pipetting errors.

- Always prepare a master mix of iQ Supermix containing the primers and probe.
- Add the template DNA sample to aliquots of the master mix for optimal reproducibility of replicate samples.
- This allows you to pipet once into the sample well or tube.

Individual pipetting of replicate samples is not recommended.

To lean more about Bio-Rad's complete solution for amplification, visit our website: **www.bio-rad.com/amplification**

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