

# iQ™ SYBR® Green Supermix

170-8882

500 x 50 µl reactions  
For Research purposes only  
Store at -20°C

## Storage and Stability

Store the iQ SYBR Green 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 SYBR Green Supermix is a 2X mix for real-time PCR applications. The iQ SYBR Green Supermix contains enough PCR reagents for up to 500 x 50 µl reactions using the hot-start enzyme, iTaq™ DNA polymerase. This enzyme is activated after an initial three minute denaturation step at 95°C.

Reagent	Volume	Description
2X SYBR Green Supermix (Orange Cap)	1.25 ml x 10	100 mM KCl, 40 mM Tris-HCl, pH 8.4, 0.4 mM of each dNTP (dATP, dCTP, dGTP, and dTTP), iTaq DNA polymerase, 50 units/ml, 6 mM MgCl <sub>2</sub> , SYBR Green I, 20 nM fluorescein, and stabilizers.

iQ SYBR Green Supermix comes optimized for real-time PCR applications. It contains fluorescein for dynamic well factor collection on the iCycler iQ system. The addition of fluorescein will not affect the reaction efficiency or sensitivity of detection.

If you would like to have extra MgCl<sub>2</sub>, a 50 mM MgCl<sub>2</sub> 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 SYBR Green Supermix is free of contaminating DNase and RNase.

Functionally, the iQ SYBR Green Supermix is tested to demonstrate resolution over six orders of dynamic range of plasmid DNA and three orders of human genomic DNA to detect a single copy gene, IL-1β.

## Reaction Set Up

Component	Volume per reaction	Final concentration
iQ SYBR Green Supermix	25 $\mu$ l	1X
Primer 1	x $\mu$ l	100 nM–500 nM
Primer 2	x $\mu$ l	100 nM–500 nM
Sterile water	x $\mu$ l	
DNA template	x $\mu$ l	
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Total Volume	50 $\mu$ l	

## Reagents and Materials Not Supplied

Screw cap microcentrifuge tubes  
Pipette tips, preferably aerosol barrier tips  
Vortexer  
Microcentrifuge  
Optical plates/tubes  
Sterile water  
Reaction primers  
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 SYBR Green 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 see data generated using iQ SYBR Green Supermix, visit our website:

[www.bio-rad.com/iCycler](http://www.bio-rad.com/iCycler)

Choose 'Real-Time PCR' and look at 'What's New'

Practice of the patented polymerase chain reaction (PCR) process requires a license. The iCycler iQ system includes a licensed thermal cycler and may be used with PCR licenses available from Applied Biosystems. Its use with authorized reagents also provides a limited PCR license in accordance with the label rights accompanying such reagents. Some applications may require licenses from other parties.

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