



## BrightGreen Express 2X qPCR MasterMix

Store at -20°C

Cat. No.	Product Name	Quantity
MasterMix-ER	BrightGreen Express 2X qPCR MasterMix - ROX	500X20µlrxns(5ml)
MasterMix-EL	BrightGreen Express 2X qPCR MasterMix - Low ROX	500X20µlrxns(5ml)
MasterMix-EC	BrightGreen 2X qPCR MasterMix - iCycler	500X20µlrxns(5ml)
MasterMix-ES	BrightGreen 2X qPCR MasterMix - No Dye	500X20µlrxns(5ml)

### Product Description

As a 2X concentrated mix of TaqFast DNA Polymerase, dNTPs, MgCl<sub>2</sub>, fluorescent dye (detection), reference dye and proprietary buffer components, the BrightGreen Express 2X qPCR MasterMix provides a convenient and reliable set-up for performing quantitative real-time analysis of DNA samples. Designed specifically for this niche of application, the components of BrightGreen Express 2X qPCR MasterMix promise top performance with respect to sensitivity, signal-to-noise ratio and elimination of primer dimers. Furthermore, crb's most efficient TaqFast DNA Polymerase included in this MasterMix allows for ultra fast PCR, conferring a significant reduction to the overall qPCR quantification and detection time, thus streamlining the experiment through cost and labor saving.

In light of the fact that the qPCR instruments can vary from user to user, crb offers the BrightGreen Express 2X qPCR MasterMix in a range of formulations, each of which has been carefully optimized to confer the best performance according to the make and model of a qPCR machine. Please use the following table as a guide for selecting the qPCR MasterMix that will be most compatible with your choice of a particular instrument/model.

Cat. No.	Product Name	Compatible Instruments
MasterMix-ER	BrightGreen Express 2X qPCR MasterMix - ROX	ABI 7000, 7300, 7700, 7900, 7900HT; Applied Biosystems StepOne™, StepOnePlus™, PRISM™ Sequencing Detection Series
MasterMix-EL	BrightGreen Express 2X qPCR MasterMix - Low ROX	ABI 7500(Fast), ViiA™, QuantStudio™, Mx4000
MasterMix-EC	BrightGreen Express 2X qPCR MasterMix - iCycler	BioRad®; iCycler®; iQ™5; MyiQ™
MasterMix-ES	BrightGreen Express 2X qPCR MasterMix - No Dye	BioRad® CFX96, CFX384, Chromo4™, CFX Connect™, Opticon 2, MiniOpticon™; Roche LightCycler® (2.0, 1.5, 480, 1536, Nano); MJ Research Opticon™, Opticon™ 2, Chromo® 4; Corbett Rotor-gene® (3000, 6200, 62H0, 6500, 65H0, 6600)

### Product Application(s)

The BrightGreen Express 2X qPCR MasterMix is ideally suited for:

- Gene expression analysis
- Microarray validation
- Viral load determination

### Storage Conditions

Upon arrival, the BrightGreen Express 2X qPCR MasterMix should be stored at -20°C and protected from light. Avoid repeated freeze-thaw cycles to retain maximum performance. The BrightGreen Express 2X qPCR MasterMix is stable for 1 year from the date of shipping when stored and handled properly.

### Protocol

1. Thaw the BrightGreen Express 2X qPCR MasterMix, template DNA, primers and nuclease-free water on ice. Mix each solution well.
2. Set up the following reaction mixture (10 µl or 20 µl reaction volume):

Components	10 µl Reaction	20 µl Reaction	Final Concentration
BrightGreen Express 2X qPCR MasterMix	5 µl	10 µl	1X
Forward Primer (10 µM)	0.3 µl	0.6 µl	300 nM
Reverse Primer (10 µM)	0.3 µl	0.6 µl	300 nM
Template DNA	Variable	Variable	≤500 ng/reaction
Nuclease-free H <sub>2</sub> O	to 10 µl	to 20 µl	

3. Perform qPCR reactions using the following cycling program:

Step	Temperature	Duration	Cycle(s)
Enzyme activation <sup>Note 1</sup>	95°C	30 Secs	1
Denaturation	95°C	3 - 5 secs	40
Annealing/Extension <sup>Note 2</sup>	60°C	10 - 30 secs	
Melting curve	Refer to specific guidelines for instrument used		

### Important Notes:

1. For gDNA amplification, use 2 minutes enzyme activation time instead of 30 seconds.
2. 10 - 15 secs annealing/extension time is preferred unless restricted by the software.
3. Target amplicon size should not exceed 150 bp.
4. Aliquot reagents to avoid contamination and repeated freeze-thaw cycles.
5. BrightGreen Express 2X qPCR MasterMix components are light sensitive and therefore, avoid prolonged direct exposure to light.
6. Perform PCR as soon as the reaction mixture is prepared; otherwise keep everything chilled or frozen meanwhile.



All crb PCR, RT-PCR, and qPCR products are ISO 13485:2003 and 13485:2012 certified as diagnostic grade and in compliance with all regulatory requirements for the design and manufacture of medical devices, as outlined by the International Organization for Standardization (ISO). For technical questions, please email us at support@coderegenesis.com or visit our website at www.coderegenesis.com.