

## MP650 Dye qPCR Calibration Solution \*10,000X\*

Catalog number: 67039  
Unit size: 100 uL

Component	Storage	Amount (Cat No. 67039)
MP650 Dye qPCR Calibration Solution *10,000X*	Freeze (< -15 °C), Minimize light exposure	100 uL

## OVERVIEW

MP650 is designed to have identical spectra to those of Mustang Purple. Real-time thermal cyclers require calibration to generate a spectral profile for the fluorescence signal. Since instruments can differ in fluorescence detection sensitivity, the concentrations needed to calibrate any dye, such as MP650, will depend on the device used. The AAT Bioquest MP650 dye qPCR Calibration Solution supplied as a 10,000X concentrate is compatible with a wide variety of qPCR instruments, including the ABI7500 Fast, QuantStudio™, and ViiA™ 7 systems. Calibration and verification should be run every six months or as needed. Please refer to the instrument maintenance guide for complete instructions on use.

## KEY PARAMETERS

## qPCR

Recommended plate PCR Microplate  
Instrument specification(s) MP650 or Mustang Purple Filter

## SAMPLE EXPERIMENTAL PROTOCOL

This generic protocol is suitable for the ABI7500 FAST qPCR instrument. For complete instructions on use, refer to the maintenance guide for your instrument.

### Prepare a MP650 calibration plate:

1. Prepare an MP650 Dye qPCR Calibration working solution by mixing 1  $\mu$ L of the 10,000X MP650 Dye qPCR Calibration Solution with 10 mL of nuclease-free water or qPCR buffer.

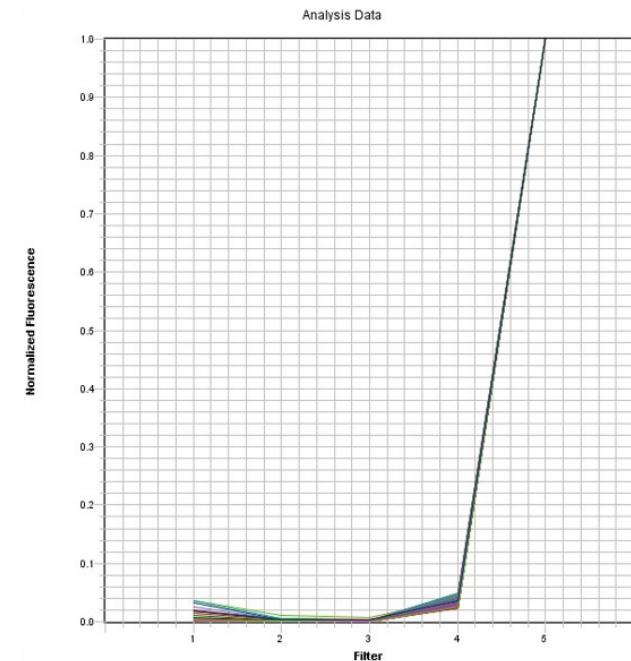
**Note:** The final dye concentration must be optimized based on the calibration requirements for your instrument. Refer to the manufacturer's maintenance guide for detailed instructions.

2. Add 20  $\mu$ L of the MP650 Dye qPCR Calibration working solution to all wells of a reaction plate.

**Note:** The volume may vary depending on your instrument. Refer to the manufacturer's maintenance guide for detailed instructions.

3. Seal the plate with an optical adhesive cover.
4. Centrifuge the plate for 2 minutes at < 1500 rpm.
5. Check that the liquid in each well of the plate is at the bottom of the well. If not, centrifuge the plate again at a slightly higher rpm and for a longer period of time.
6. For complete calibration instructions, refer to the maintenance guide for your instrument.

## EXAMPLE DATA ANALYSIS AND FIGURES



**Figure 1.** ABI 7500 FAST system MP650 dye spectrum.

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