BrightBox QUANTITATION

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# BrightBox Quantitation Assay

## The BrightBox Assay is a novel method to quantitate your NGS libraries

Library quantitation can be a lengthy, costly and inaccurate process where variability can lead to unequal library loading and wasted time and money.


The BrightBox Assay is a quick and simple method to accurately quantitate any NGS libraries.

Get results quickly by shortening your current library preparation and instrument loading workflow.

## Why Use BrightBox

✔ **FAST**
Save time with reactions done in just 5 minutes.

✔ **EASY**
Reduce manual errors and save time with premixed Assay Mix and prediluted standards stored in the fridge.

✔ **ACCURATE**
Improve data with consistent pooling based on actual molarity.

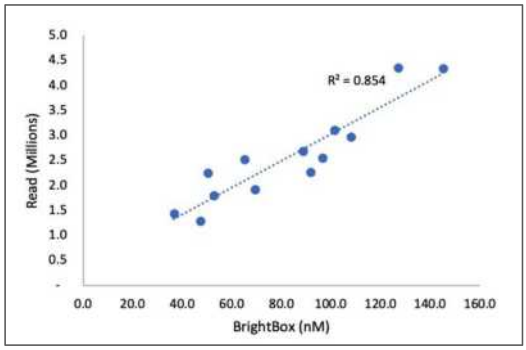
✔ **FLEXIBLE**
Quantitate any library with attached P5 and P7 adapters.

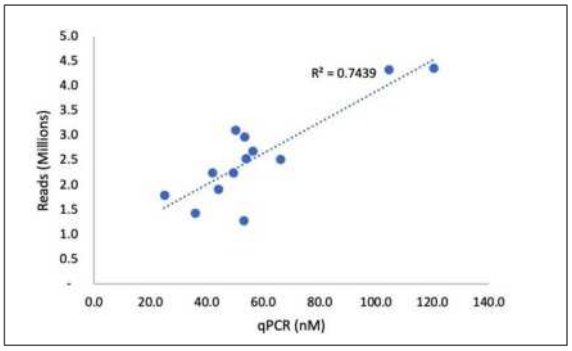
**Faster than current workflows. Preparation and incubation times for the BrightBox assay are a fraction of the times for other methods.**

| BrightBox | Mass Analysis | Fragment Analysis | qPCR |
|---|---|---|---|
| Aliquot Assay Mix<br>Add Libraries<br>Incubate and read<br>- 5 minutes! | Mix Library with Dve<br>Load one sample<br>at a time onto Qubit | Estimate Mass<br>- 1 hour<br>Dilute Library<br>Prime<br>Run on instrument<br>- 1 hour | Dilute Libraries<br>- 1 hour<br>Thaw Master Mix<br>Assemble Master Mix<br>Aliquot Master Mix<br>Add Libraries<br>Cycle and read - 1 hour |
| **15 minutes** | **25 minutes** | **2 hours** | **2.5 hours** |
| **26 libraries per 96 well-plate** | **16 libraries** | **11 - 96 libraries** | **12 libraries per 96 well-plate** |

## Quantitation is correlated to read numbers.

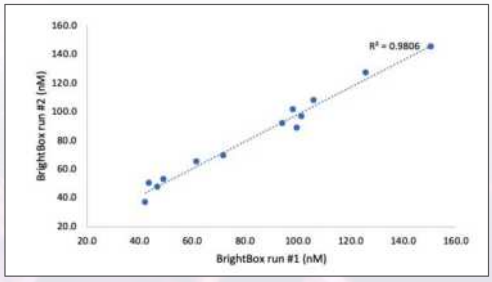
Molarity was calculated for 13 libraries with the BrightBox assay and a commonly used qPCR library quantitation kit . Equal volumes of each library were loaded onto a MiSeq and read numbers were plotted against calculated molarity.



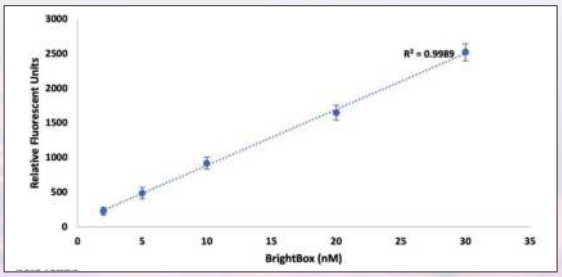

## Reproducible results.

16 different libraries were repeatedly run using the BrightBox assay on a qPCR instrument



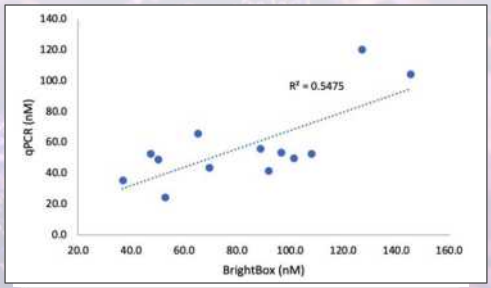

## Quantitation is linear and reproducible.

Standards from the BrightBox kit were run 12 different times on a qPCR instrument and show high linearity and low variability.




## Correlation between methods.

16 different libraries were quantitated with the BrightBox assay and a qPCR library quantitation kit. Outlying points are due to an inaccurate estimation of average fragment size during qPCR quantitation

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