

Quantus Quick Start Sheet

Fill out the log book following use.

Before running samples, check to see if the instrument has been calibrated with the same dye lot that you are using for your readings. Calibration is recommended for each new dye lot used.

To run a sample:

- Insert sample tube (0.5 mL PCR tube – see below) with 200 μ L total volume of dye and sample.
- Push any button to wake up instrument.
- Select the protocol that you would like to use (dsDNA, ssDNA, RNA or ONE dsDNA).
- Change the sample volume to the amount used for your sample (failure to do so will give an incorrect result).
- If desired, change the units the concentration will be reported in.
- Select the onscreen measure button using the arrow keys (ex. dsDNA, Push Go to Measure) and push center key to start measurement.
- The Quantus will automatically calculate the concentration of the nucleic acid sample and report it.

Notes:

- According to the manuals for the QuantiFluor reagents, samples mixed with dye should be incubated for 5 minutes protected from light (wrapped in foil).
- The QuantiFluor Dye working solutions are stable for 2-3 hours at room temperature.
- Any bubbles in the tube will cause an inaccurate reading and should be avoided.
- If your sample is at a higher concentration than the standard used for calibration, dilute to ensure it is within the linear range of the calibration.
- For accurate results proper 0.5 mL PCR tubes (Promega E4942 or Axygen PCR-05-C) must be used and are provided by the BIF (drawer below Quantus).
- Users must supply their own reagents (available from Promega).

Calibration:

The dsDNA and RNA QuantiFluor Dye Systems allow for a high or low concentration standard sample for calibration. The choice of calibration standard is dependent upon your sample concentrations (if you expect your DNA or RNA to be <0.1 ng/ μ L, then you would choose the low-concentration standard).

To prepare the standard solution, using the table below, add 100 μ L of dye solution and 100 μ L of sample solution to a PCR tube. To prepare a blank solution add 100 μ L of dye solution to 100 μ L of TE.

Dye System	Dye Dilution	Vol. standard (μ L)	Vol. TE (μ L)	Final conc. (ng/ μ L)
dsDNA	1:200	2	98	2
Low conc ssDNA	1:1000	2	1998	0.1
High conc. ssDNA	1:200	4	96	4
Low conc. RNA	1:1000	2	1998	0.1
High conc. RNA	1:200	5	95	5

- Insert the blank, choose calibrate, high or low standard (if applicable) and select read blank.
- Repeat for the standard and save the calibration.

*ONE dsDNA calibration does not require dye dilution – see the manual for calibration details.