

**Title:**

dsDNA quantification using Qubit™ 1X dsDNA HS (High Sensitivity) Assay Kit

Date last updated:

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Written by:

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**dsDNA quantification using Qubit™ 1X dsDNA HS (High Sensitivity) Assay Kit****1. PURPOSE**

To quantitate dsDNA with sample concentrations ranging from 10 pg/ul to 100 ng/ul providing a core detection range of 0.2 ng to 100 ng of DNA.

**2. MATERIALS & EQUIPMENTS**

## Samples

1. Dengue or Zika dsDNA

## Reagents

1. Qubit 1X dsDNA HS Assay Kit (ThermoFisher, Q33231)

## Consumables

1. Qubit™ Assay Tubes (Cat. No. Q32856)

## Equipments

1. Qubit 4 Fluorometer (ThermoFisher, Q33238)

**3. PROCEDURE**

1. Set up required number of assay tubes for 2 standards and “n” samples
2. Label tube lids

**Note: Do not label the side of tubes as this could interfere with reading on Qubit.**

3. Add 10 ul of each Qubit standard to appropriate tube
4. Add 1 – 20 ul user sample to appropriate tube
5. Add Qubit 1X dsDNA working solution to each tube so that final volume is 200 ul

**Note: Final volume in each tube is 200 ul. Each standard tube requires 190 ul Qubit working solution and each sample tube requires anywhere from 180 – 199 ul.**

6. Mix by vortexing for 3 - 5 s

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7. Briefly centrifuge tube
8. Allow all tubes to incubate at RT for 2 min
9. Proceed to read standards and samples on Qubit instrument
10. On HOME screen, press DNA, then select “1X dsDNA HS” as assay type
11. Press READ STANDARDS

**Note: If you already performed a calibration, the instrument prompts you to choose between reading new standards and running samples using previous calibration. If you want to use previous calibration, skip to step 14.**

12. Insert Standard #1 into sample chamber, close lid and press READ STANDARD
13. Insert Standard #2 into sample chamber, close lid and press READ STANDARD
14. Press RUN SAMPLES
15. On assay screen, select sample volume and units to be used (eg volume = 1 – 10 ul and units = ng/ul)
16. Insert sample tube into sample chamber, close lid and press READ TUBE
17. Repeat step 16 until all samples have been read

**Process Map/ workflow chart**

