ABQubit 1X dsDNA HS Assay Kit (Pre-Mixed)

Cat. No. : RK30141

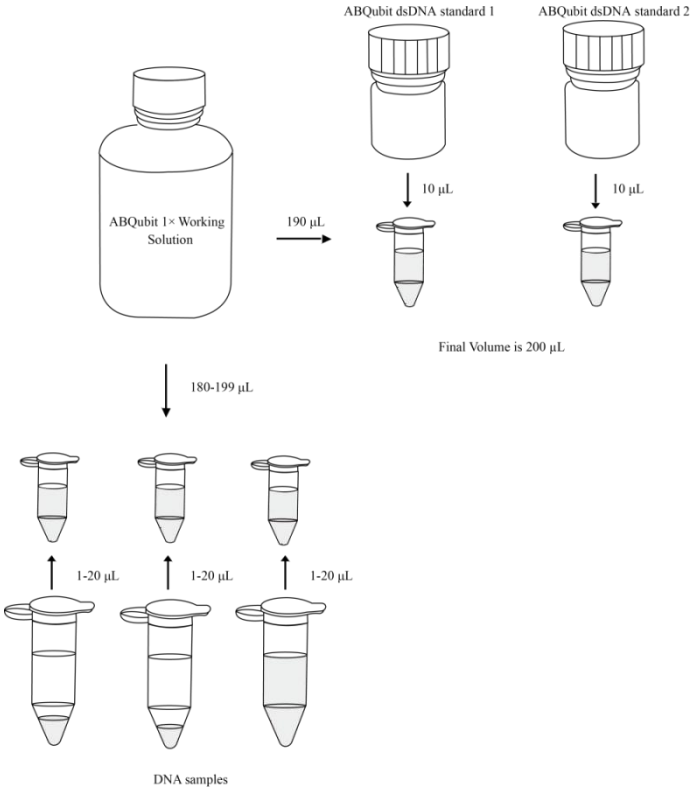
Product components

Components	Component number	Size-1 100 RXN	Size-2 500 RXN	Concentration	Storage
ABQubit 1X Working Solution	RM30171	50 mL	250 mL	1X	2-8℃ ，protect from light and moisture
ABQubit dsDNA standard 1	RM30162	1 mL	5 mL	0 ng/μL	2-8℃
ABQubit dsDNA standard 2	RM30163	1 mL	5 mL	10 ng/μL	2-8℃

Product Description

Accurately detect and quantify dsDNA using the ABQubit 1X dsDNA HS Assay Kit (Pre-Mixed). The product provides selective and sensitive detection of various dsDNA samples and PCR products, as well as quantification of input DNA and DNA libraries in NGS. Unlike methodologies which rely upon UV absorbance for detection, the ABQubit kit relies upon fluorescence that is selective to dsDNA, decreasing the effects of sample contaminants such as salts, solvents, detergents, proteins, RNA, ssDNA, and free nucleotides upon final quantification results. Fluorescence measurements via the ABQubit 1X dsDNA HS Assay Kit (Pre-Mixed) have greater sensitivity than conventional DNA quantification methods, precisely detecting dsDNA at concentrations ranging between 10 pg/μL to 100 ng/μL (R2 > 0.99). A Qubit Fluorometer can read dsDNA concentration immediately upon addition of the provided diluted reagent and buffer to a sample.

Experimental Workflow



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Instructions

1.Before use, bring all components to room temperature and mix by inverting at least 10 times to ensure liquid homogenization.

2.Prepare sufficient 0.5 mL EP tubes suitable for use with the Qubit instrument.

Note: The EP tubes compatible with the Qubit instrument are transparent thin-walled tubes. Do not mark the sides of the EP tubes as it may affect fluorescence value collection.

3.Prepare standard curves. Label two EP tubes Standard 1 and Standard 2. To each tube, add 190 μL 1X working solution; add 10 μL ABQubit dsDNA Standard 1, or ABQubit dsDNA Standard 2, to the appropriate EP tube as labeled. Vortex each diluted standard briefly. Avoid creating bubbles.

4.Starting volume of samples should be between 1-20 μL. Adjust each sample to a final volume of 200 μL using 1X Working Solution and vortex briefly to mix. Avoid creating bubbles.

5. While protecting from light, incubate the prepared standards and sample(s) at room for 2 minutes.

6.This kit is designed for use with the dsDNA Highly Sensitive Detection Program on the Qubit Fluorometer. Refer to the Qubit Fluorometer User Guide for a detailed protocol on reading standards and samples. Ensure that standards and samples are inserted into the sample detection wheel in the correct order for reading as indicated by the program.

7.A fresh calibration of the Qubit Fluorometer, using the two prepared standards, is recommended to generate a standard curve.

8.Read the dsDNA concentration of the prepared sample(s). Multiple readings can be taken for each sample, but care should be taken to avoid samples from remaining in the Qubit Fluorometer for prolonged periods, as extended time in the Qubit Fluorometer can raise the temperature of samples and affect readings.

Precautions

1.Fluorescent dyes are subject to quenching issues, so please make every effort to avoid exposure to light to slow down fluorescence quenching.

2.Before performing quantitative detection, please allow all components in the kit to equilibrate to room temperature.

3.For your safety and health, please wear a lab coat and disposable gloves when handling the reagents.

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