

QuantFlex 1X dsDNA BR Quantification Kit



Product Introduction

The QuantFlex 1X dsDNA BR Quantification Kit is a convenient, broad-range, and accurate fluorescent assay for the quantification of double-stranded DNA (dsDNA). The kit includes a ready-to-use working solution and dsDNA standards, enabling reliable DNA quantification with minimal preparation.

Depending on sample volume 1-20 μL , the assay kit is designed to be accurate for initial DNA sample concentrations of 0.2 to 4,000 ng/ μL , providing a detection range of 4-4,000 ng. It demonstrates strong tolerance to common contaminants such as salts, free nucleotides, solvents, detergents, and proteins, ensuring accurate results even with partially purified samples.

The QuantFlex 1X dsDNA BR Quantification Kit is an ideal solution for routine dsDNA quantification as well as NGS-related applications, including input DNA quantification and DNA library quantification for large-scale sequencing workflows.

Product Specification

Parameters	Description
Detection Method	Fluorescence
Initial Sample Volume	1-20 μL
Quantitation Range	0.2 to 4,000 ng/ μL
Initial Sample Concentration	4-4,000 ng
Compatible Platform	QuantFlex 800, Qubit 2, Qubit 3, Qubit 4, and Qubit Flex
Compatible Consumables	BSH11S1-L 0.2mL PCR 8-Strip Tubes (With Attached Flat Caps)
Storage Condition	Store at 2-8°C, protected from light

Product Features

- **High Inhibitor Tolerance:** Delivers reliable dsDNA quantification in the presence of common contaminants, including salts, free nucleotides, solvents, detergents, and proteins.
- **Broad Quantification Range:** Accurately quantifies dsDNA over a wide concentration range from 0.2 to 4,000 ng/ μL .
- **High Selectivity for dsDNA:** Specifically detects double-stranded DNA, minimizing interference from RNA and other nucleic acids.
- **Easy-to-Use Workflow:** Simple mix-and-read format with minimal hands-on time, compatible with Bioer fluorometers and Qubit fluorometers.

Application Cases

Cases 1

Duplicate ctDNA samples at concentrations ranging from 0.2 to 4,000 ng/μL were quantified using the QuantFlex 1X dsDNA BR Quantification Kit according to the kit protocols. The correlation between the theoretical and measured concentrations is shown below.

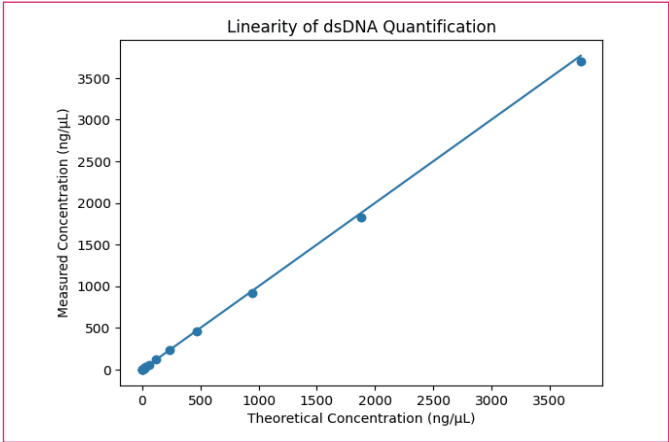


Fig.1. Detection of dsDNA by the QuantFlex 1X dsDNA BR Quantification Kit

Results: A strong linear correlation was observed between the measured and theoretical dsDNA concentrations over the range of 0.2–4,000 ng/μL, with a coefficient of determination (R^2) of 0.9999.

Cases 3

The QuantFlex 1X dsDNA BR Quantification Kit and an imported brand product were subjected to accelerated aging at 37°C. The fluorescence values of Standard 2 were measured at different time points, and the relative decrease in fluorescence intensity over time was calculated.

Accelerated Stability Study at 37°C					
BSB124			Competitor		
Accelerated Time (Days)	Fluorescence Value	Relative Change (%)	Accelerated Time (Days)	Fluorescence Value	Relative Change (%)
0	14003.50	0.0%	0	13076.00	0.0%
3	13261.76	-5.3%	3	11045.27	-15.5%
7	12222.41	-12.7%	7	8658.29	-33.8%
14	11773.59	-15.9%	14	3572.92	-72.7%
21	11230.48	-19.8%	21	3012.58	-77.0%
28	9868.26	-29.5%	28	2645.78	-79.8%

Results: Under accelerated conditions at 37 °C, the Bioer reagent demonstrates significantly improved fluorescence stability compared with the comparator reagent, indicating superior thermal stability and robustness.

Ordering Information

Product Name	Cat. No.	Package	Storage Condition
QuantFlex 1X dsDNA BR Quantification Kit	BSB124S1	250T	2°C-8°C
QuantFlex 1X dsDNA BR Quantification Kit	BSB124M1	1250T	2°C-8°C



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