

QuantFlex 1X dsDNA HS Quantification Kit



This kit is a convenient, sensitive and accurate double-stranded DNA (dsDNA) fluorescence quantitative detection kit newly developed by Bioer, including a working solution and dsDNA standard. The dsDNA kit is highly selective, allowing accurate quantification of samples with concentrations ranging from 5 pg/μL to 120 ng/μL, and is well tolerated against conventional contaminants such as salts, free nucleotides, solvents, detergents, and proteins.

This kit is simple and convenient to operate. Processing only includes mixing the working solution with the dsDNA sample to be tested and then using the QuantFlex 800 to take readings. It is an ideal choice for dsDNA quantification and NGS large-scale DNA sample quantification, such as Input DNA quantification, DNA library quantification and more.

★ Product Features

High Specificity: dsDNA-specific dye, single-stranded DNA, and RNA has little influence;

Good Sensitivity: Wide range of quantitative concentration, dsDNA concentration 5pg/μL to 120ng/μL;

Convenient to Use: After mixing the working liquid with the sample to be tested, step on the machine;

Resistance to Inhibition: Tolerance to various pollutants such as salt, free nucleotide, solvent, stain remover and protein;

Wide Application: It can be used for dsDNA quantification of different sample sources.

▮ The Application Case

Case one

Different types of dsDNA were taken as samples, including λDNA, 293T cell genome, next-generation sequencing library and Escherichia coli plasmid DNA, which were diluted to different concentration gradients, respectively. The Bioer Kit applies for quantitative comparison with Brand A, and the results are shown in the table below:

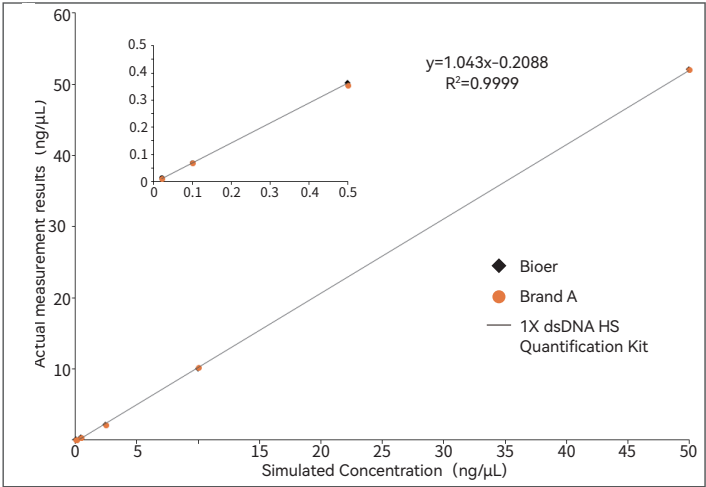
Sample	Kit	Determination of nucleic acid concentration (ng/μL)					
λDNA	Brand A	41.9	9.56	2.50	0.504	0.102	0.0214
	Bioer	42.6	9.72	2.52	0.514	0.104	0.0208
293T cell genome	Brand A	20.0	4.98	1.26	0.316	0.0808	0.0200
	Bioer	20.2	4.82	1.27	0.318	0.0830	0.0203
Next-generation sequencing libraries	Brand A	53.0	10.2	1.89	0.292	0.0510	0.0078
	Bioer	55.0	10.8	1.90	0.312	0.0480	0.0078
E. coli plasmid	Brand A	26.1	6.90	1.57	0.396	0.0980	0.0257
	Bioer	28.3	7.34	1.85	0.430	0.1120	0.0277

Results: Results showed no significant difference between the detection results of dsDNA samples of different types and the quantitative values of the nucleic acid of similar products of Brand A.

Case two

λDNA was applied for the simulated sample to dilute in gradient, and results were respectively tested by this kit and Brand A, as shown in the figure below:

Results: The results of this product's simulated samples with different concentration gradients have good linearity with dilution ratio. There is no noticeable difference between similar products of Brand A.



Case three

λDNA was used as the control, and different kinds and concentrations of contaminants were added. dsDNA concentration before and after the addition of contaminants was measured and compared. The results are shown in the following table:

Contaminants	Final Concentration	10 μL of sample concentration	Results
Sodium Chloride	25 mM	0.5 M	OK*
Magnesium Chloride	1 mM	20 mM	OK
Sodium Acetate	30 mM	600 mM	OK
Ethyl Alcohol	1%	20%	OK
Phenol	0.1%	2%	OK
Chloroform	1%	20%	OK
PEG 200	1%	20%	OK
SDS	0.002%	0.04%	OK
BSA	1X**	1X	OK
ssDNA	1X	1X	OK
RNA	1X	1X	OK
dNTP	1X	1X	OK

OK*: Deviation within 10%; 1X**: Same concentration as dsDNA

Results: Results showed that Bioer products had good tolerance to different contaminants.

Product Parameters

Items	Description
dsDNA Quantification Range	The recommended sample size is 1-20 μL, which can quantify dsDNA by 0.2-100 ng
Supporting Instruments	QuantFlex Fluorometer, Qubit 4, Qubit Flex Fluorometer
Preservation Conditions	Store at 18-28°C protected from light

Ordering Information

Product Name	Cat. No.	Specification	Note
QuantFlex 1X dsDNA HS Quantification Kit	BSB83S1	250T	Contains 1 mL each for standard substance #1 and #2
QuantFlex 1X dsDNA HS Quantification Kit	BSB83M1	1250T	Contains 5 mL each for standard substance #1 and #2