

02 Fluo-100 Fluorometer



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Fluorometer technical background

Our nano series Micro-Spectrophotometer measure the concentration and purity of the sample, because it is able to measure the absorbance of the whole ingredient (such as DNA, RNA, oligos and so on) of the sample at 260nm, that may make the read inaccurate. While the fluorometer measure the fluorescence intensity of the fluorescent reagent which combine with the target molecule to read the concentration of sample. Generally, the read is lower than Nano series products but much accuracy than it

The sensitivity of Nano series products are above 5ng/ul, and while the fluorometer is 0.5pg/ul in measuring DNA concentration. It is important and necessary for the most applications to read the lower and accuracy concentration of the sample. Using the Fluo-100 fluorometer with the quantitation kit can measure the sample concentration rapidly, sensitively and accurately



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Fluo-100 Simple, easy to use and applications

The Fluo-100 is a dual-channel fluorometer, it provides high-sensitive fluorescent detection when quantifying nucleic acids and proteins, simple and cost to operate

Applications:

1. The sample is scarce and difficult in processing
2. The low quantity of DNA, RNA, or protein after extraction
3. The sample will be used in the expensive experiments: qPCR, PCR cloning, transfection, the next generation sequencing and etc.

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Fluo-100 Highlights

1. Simple – 4.3 inch touch screen, small and easy to use
2. Easy measurement within 3 sec for DNA, RNA, and protein
3. High sensitivity – Lowest DNA detection limit is 0.5pg/ul
4. Two optical channels – Equipped with two fluorescence channels for nucleic acid, protein quantitation in one detection
5. Linear Dynamic Range—Five orders of magnitude.
6. Opening system—You can match the instrument with the reagent you choose
7. It can save at most 1,000 data and output data by USB port
8. Adapter: 0.5ml qPCR tube adapter
0.2ml qPCR tube adapter

Code	Light	Excitation Filters	Emission Filters
Fluo-100A	UV	365±20nm	420-480nm (60nm)
	Blue	460±20nm	525-570nm (45nm)
Fluo-100B	Blue	460±20nm	525-570nm (45nm)
	Red	625±10nm	670-725nm (55nm)
Fluo-100C	Blue	460±20nm	525-570nm (45nm)
	Green	525±20nm	575-640nm (65nm)

Fluo-100 Quantitation kit

High sensitivity of dsDNA Quantitation Kit: 0.2--100ng

High sensitivity of ssDNA Quantitation Kit: 1--200ng

Broad range of dsDNA Quantitation Kit: 100--1600ng

Protein Quantitation Kit is researching

Specification

Light source	LED
Dynamic range	Five orders of magnitude
Linear Dynamic Range	R ² >0.995
Detector	Photodiode
Repeatability	<1.5%
Stability	<1.5%
Sensitivity	dsDNA: 0.5ng/ml
Measurement speed	3s (Once)
Dimension (W×D×H)mm	194 × 155 × 72.5 mm
Weight (kg)	0.4Kg

Fluo-100 Quantitation kit operation



Application of different fluorescence channel

Channel	Excitation Filters	Normal kits	Applications
UV channel	365±20nm	Hoechst 33258, 4-MU, EnZCheK Caspase	Nuclear acid quantification, Plant GUS reporter gene detection, Poptosis detection
Blue channel	460±20nm	PicoGreen®, oligreen, RiboGreen®, GFP, Protein, Fluorescein, Quant-iT™	dsDNA, ssDNA, RNA quantification, GFP gene detection, Fluorescein detection, Protein detection
Green channel	525±20nm	Rhodamine, Cy3, RFP Vybrant Cytotoxicity	Rhodamine detection, Cy-3 fluorescence labeling detection, RFP gene detection, Cell activity poison detection
Red channel	625±10nm	Cy5, Quant-iT RNA	Cy-5 fluorescence labeling detection, RNA quantification

Ordering information

Code	Description	Code	Description
AS-18010-00	Fluo-100A Fluorometer, DC12V 1A	RS-FL0101-S	High-sensitivity dsDNA Quantitation kits (100 assays)
AS-18020-00	Fluo-100B Fluorometer, DC12V 1A	RS-FL0101-M	High-sensitivity dsDNA Quantitation kits (200 assays)
AS-18030-00	Fluo-100C Fluorometer, DC12V 1A	RS-FL0101-L	High-sensitivity dsDNA Quantitation kits (1000 assays)
AS-18011-01	Adapter for 0.5ml qPCR tube (Standard)	RS-FL0102-S	Broad-range dsDNA Quantitation kits (100 assays)
AS-18011-02	Adapter for 0.2ml qPCR tube (Options)	RS-FL0102-M	Broad-range dsDNA Quantitation kits (200 assays)
		RS-FL0102-L	Broad-range dsDNA Quantitation kits (1000 assays)
		RS-FL0103-S	High-sensitivity ssDNA Quantitation kits (100 assays)
		RS-FL0103-M	High-sensitivity ssDNA Quantitation kits (200 assays)
		RS-FL0103-L	High-sensitivity ssDNA Quantitation kits (1000 assays)