

# Fluorometer



**Biofermentation & Biopharma**

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**Life science**

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# Portable Fluorometer

## ▶ Product Description

PFM-01X2 fluorometer is a very compact DNA and RNA concentration detection equipment, which can achieve high accuracy results with only 1~20ul sample. With high detection sensitivity, wide detection range, and short detection time, it is a ideal tool for scientific research laboratories to detect low-concentration nucleic acids.



## ▶ Compatible with Qubit assay kits:

dsDNA HS assay kits , dsDNA BR assay kits, ssDNA assay kits, RNA HS assay kits, RNA BR assay kits, RNA ER assay kits, microRNA assay, Protein BR assay kit.

The instrument also provide kinetic function.

The PFM-08X1 fluorometer is a highly compact fluorescence quantification instrument suitable for measuring low concentration of nucleic acids and protein samples. The instrument operates on the principle of fluorometric method and can simultaneously perform fluorescence quantification for up to 8 samples, providing accurate measurement results. It offers high sensitivity, wide detection range, and short detection time, making it the perfect tool for research laboratories to detect low-concentration nucleic acids and proteins. It is widely used in applications such as DNA quantification in NGS Library Prep and PCR experiments.

PFM-08X2 is designed to accurately measure DNA, RNA, and protein quantity. It uses fluorometric quantification method to accurately detect the selected molecule, which minimizes the effects of contaminants (DNA, RNA, protein, free nucleotides, or excess salts) on the result. This device is particularly suited for detecting low concentrations of nucleic acids and proteins in research laboratories. It is widely used in applications such as DNA quantification in NGS library preparation, RNA quantification, and nucleic acid concentration measurement in PCR experiments, providing reliable experimental data support.



The PFM-08X2 is equipped with dual-fluorescence channels, supports testing of up to 8 samples per run, and detects dsDNA high sensitivity, dsDNA broad range, RNA high sensitivity, RNA broad range, ssDNA, microRNA, and protein broad range etc.

## Features

### ▶ Rapid Detection

It can accurately detect the sample concentration within 5 seconds

### ▶ Less Sample Needed

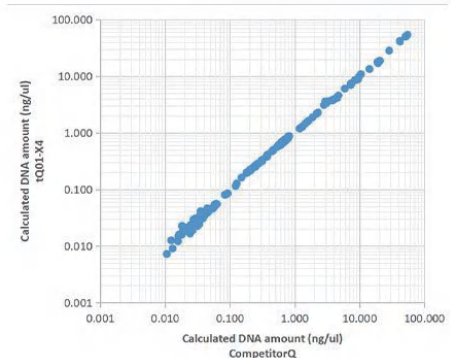
Only need 1–20  $\mu$ L sample to obtain the reliable result

### ▶ Intuitive Interface

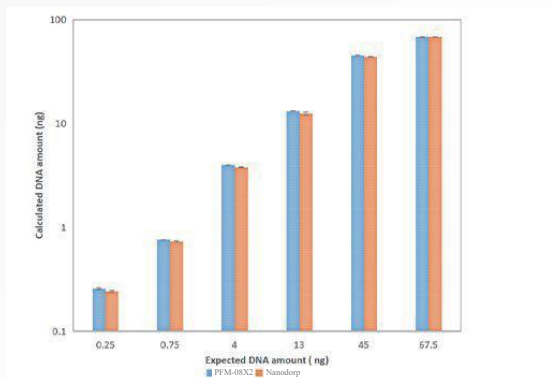
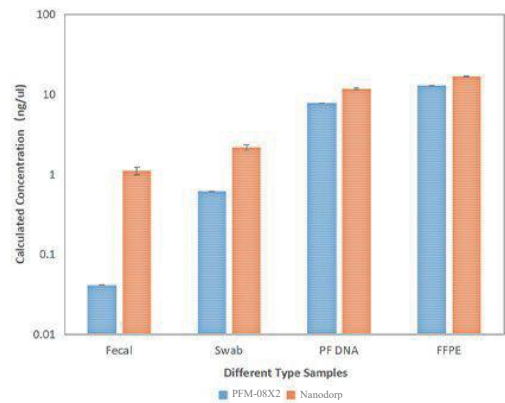
The operation interface design is intuitive and easy to use

### ▶ High Accuracy

High detection sensitivity, it is an effective tool for low concentration nucleic acid and protein quantification.

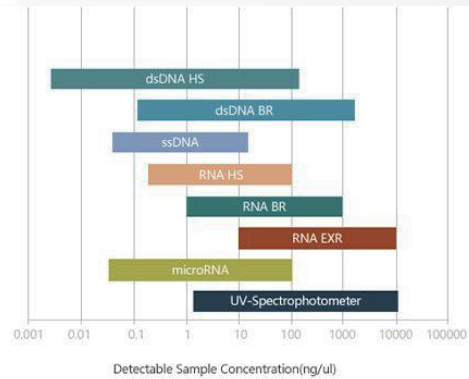


300 samples of dsDNA were tested on PFM-08X2 and 20 repeatability tests were performed on different types competitor Q respectively, and PFM has a good linear correlation with competing products.



20 repeatability tests were performed on different types of samples in PFM-08X2 and Micro spectrophotometer respectively. low-concentration samples, the stability of the fluorometer detection results is higher.

According to the standard kit method, 10 repeatability tests were performed on PFM-08X2 and competitor Q for DNA content between 0.25-67.5ng, and the accuracy of the test results was compared.



The detectable sample concentration range of PFM-08X2 and micro-spectrophotometer. Using with corresponding assay kits, PFM can specifically detect various types of DNA/RNA.

## ▶ The working process of fluorometer:



## ▶ Specification

Specification	Parameter		
Model Number	PFM-01X2	PFM-08X1	PFM-08X2
Sample Volume	1~20ul	1~20ul	1~20ul
Sample Capacity	1	8	8
Compatible Tube	0.5mL PCR Tube	0.2mL PCR Tube	0.2mL Clear PCR Tube
Test Time	≤5s/sample	≤5s/sample	≤5s/sample
Linearity Range	5 orders of magnitude	5 orders of magnitude	5 orders of magnitude
Light Source	LED	LED	LED
Channel	1	1	2
Excitation Wavelength	Blue 460-480nm, Red 630-650nm	Blue 460-480nm	Blue 460-480nm, Red 630-650nm
Emission Wavelength	Green500-535nm,Red670-710nm	Green 500-535nm	Green500-535nm,Red670-710nm
Detector	SiPMT	SiPMT	SiPMT
Sensitivity	dsDNA 0.01ng/ul	dsDNA 0.01ng/ul	dsDNA 0.01ng/ul
Test Item	dsDNA High Sensitivity dsDNA Broad Range RNA High Sensitivity RNA Broad Range RNA Extended Range microRNA ssDNA Protein Broad Range Kinetic	dsDNA High Sensitivity dsDNA Broad Range ssDNA microRNA Protein Broad Range Kinetic	dsDNA High Sensitivity dsDNA Broad Range RNA High Sensitivity RNA Broad Range RNA Extended Range microRNA ssDNA Protein Broad Range Kinetic
Calibration	2 points or 3points	2 points	2 points
Operation	5" Touch screen	5" Touch screen	5" Touch screen
Power	DC5V, 2A, 10W	DC5V, 2A, 10W	DC5V, 2A, 10W
Operation Environment	15-30°C, <75%, Indoor use	15-30°C, <75%, Indoor -use	15-30°C, <75%, Indoor-use
Dimension	110*230*45.5mm, 0.5Kg	110*230*45.5mm, 0.5Kg	110*230*45.5mm, 0.5Kg

# Benchtop Fluorometer

## IF8-M fluorescence reader

### ▶ Product Description

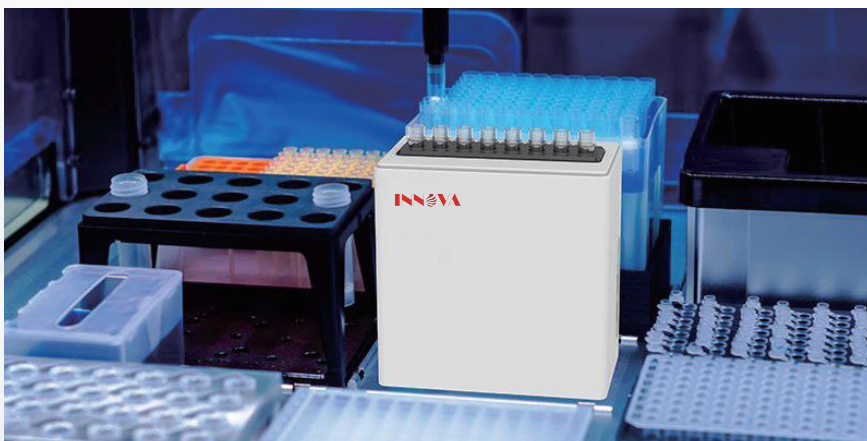
The IF8-M fluorescence reader is an extremely compact on-deck fluorometer module for microvolume nucleic acid quantification and protein concentration measurement. The device operates on the principle of fluorescent dye method, allowing simultaneous fluorescence quantification of 8 samples to obtain precise test results.

It is specifically designed for automated workstations, focusing on post-extraction nucleic acid concentration quantification and quality control of the DNA input in NGS library preparation workstations. The device can be controlled via the workstation, and when integrated with a robotic arm, it facilitates automated workflow. Its compact design takes up just one 96-well plate position on deck, and it can be tailored and adapted to accommodate different workstation setups based on the workflow.



### ▶ Features

Fluorometer adopts the fluorescence detection principle, the sample volume is only 1-20u, with the corresponding quantitative reagents can realize accurate concentration quantification. The fluorometer is an open platform, which can be flexibly adapted to different reagent brands, such as Qubit dDNA quantification kit, SSDNA quantification kit, RNA quantification kit, microRNA quantification kit, etc., as well as other brands of quantification kits adapted to the Qubit “4” device. The instrument also provide kinetic function.



## ► The working process of fluorometer:

Specification	Parameter
Model Number	IF8-M
Sample Volume	1~20ul
Sample Capacity	8
Compatible Tube	0.2mL Clear PCR Tube
Test Time	≤5s/sample
Linearity Range	5 orders of magnitude
Light Source	LED
Excitation Wavelength	Blue 460-480nm,
Emission Wavelength	Green500-535nm
Detector	SiPMT
Sensitivity	dsDNA 0.01ng/ul
Test Item	dsDNA High Sensitivity
	dsDNA Broad Range
	microRNA
	ssDNA
Protein Broad Range	
Calibration	2points calibration through the host computer or the subordinate computer.
Operation	Controlled by the host computer and both the raw fluorescence values and concentration values can be uploaded.
Operation Environment	15-30℃, <75%, Indoor -use
Dimension	85.5mm*50mm*100mm, 0.25Kg

# Product Description

## IF96-X2 Fluorescence Microplate Reader

### ► Product Description

IF96-X2 is designed to measure the fluorescence intensity of samples in microplate wells, providing quantitative data for a wide range of applications. It operates based on the principle of fluorescence spectroscopy.

IF96-X2 can be used as a Fluorometer to detect the DNA, RNA and Protein concentration. Also, it can be used as a fluorescence microplate reader.

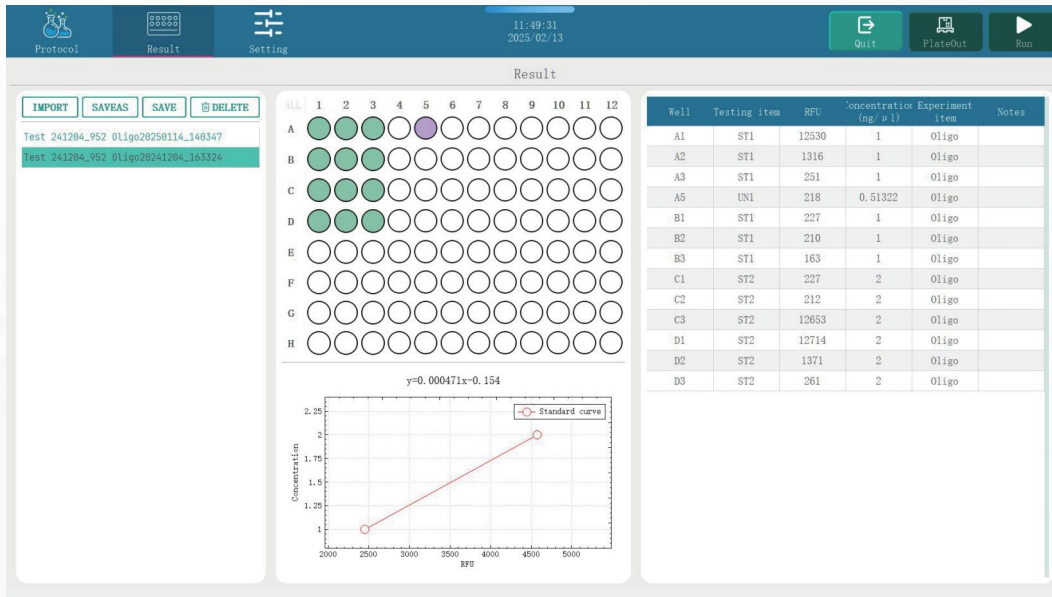
- The IF96-X2 functions as a high-precision 96-well Fluorometer, enabling the quantification of dsDNA, ssDNA, RNA, and protein concentrations using Qubit™ assay kits. With its optimized optical design and high-sensitivity detection, it delivers more accurate and reliable results, ensuring consistency across various nucleic acid and protein quantification applications. It is compatible with almost Qubit™ assay kits such as dsDNA HS assay, dsDNA BR assay, RNA HS assay, etc.
- The IF96-X2 also serves as a versatile Fluorescence Microplate Reader, making it an essential tool for life science research applications, such as biochemical, molecular biology, and drug discovery assays.
- Designed for seamless automation, the IF96-X2 can be integrated as a fluorescence detection module within an automated workstation. It supports remote control and real-time data acquisition via an upper-level computer, enabling high-throughput screening, walk-away automation, and improved workflow efficiency in laboratory automation systems.

### ► Features

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## ► Specification

Model No	IF96-X2
Sample Volume	1~20ul
Sample Capacity	1-96
Consumables	96-Well Clear Plate With Flat Bottom
Test Time	≤45S/plate
Light Source	LED
Fluorescence Channel	2
Excitation Wavelength	Blue457-483nm, Red 630-650nm
Emission Wavelength	Green 505-535nm,Red 672-712nm
Detector	SiPMT
Scanning Method	Top Reading
Test Item	dsDNA, ssDNA,RNA,microRNA, Protein etc
Dynamic	5 orders of magnitude
Calibration	2points
Communication	USB to serial port, bluetooth
Power	DC24V,2A
Environment	15-30°C, <75% indoor use only
Dimension (LXWXH)	259mm×180mm×103mm, 2Kg



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