Fluorometer NeoFluo

The **NeoFluo is a dual-channel fluorometer** that provides highly sensitive fluorescence detection for the quantification of nucleic acids and proteins.

The NeoFluo is particularly effective for:

- Rare and difficult to process samples
- A small amount of DNA, RNA or protein after extraction.
- Samples that will be used in expensive experiments: qPCR, PCR cloning, transfection, next generation sequencing, etc., are not included in the scope of this project.

Features:

- Simple and easy to use with its 4.3-inch touchscreen display
- Easy measurement in 3 seconds for DNA, RNA and proteins
- High sensitivity - The lower limit of detection of DNA is 0.5 pg/µl.
- Two Optical Channels - Equipped with two fluorescence channels for quantification of nucleic acid and proteins in a single detection.
- Linear dynamic range - Five orders of magnitude.
- Open system - You can use any reagents you wish.
- It can record up to 1,000 data records and generate data via USB port.
- 2 adapters for 0.5 ml and 0.2 ml tubes.

Fluorometer NeoFluo

Technical background

Microspectrophotometers measure the concentration and purity of the sample, as they are capable of measuring the absorbance of all ingredients (such as DNA, RNA, oligos, etc.) of the sample at 260 nm. But this can make the reading imprecise. The fluorometer measures the fluorescence intensity of the fluorescent reagent that combines with the target molecule to read the concentration of the sample, which results in better accuracy.

The sensitivity of the microspectrophotometers is greater than 5ng/ul, while the fluorometer measures the DNA concentration at 0.5pg/ul. It is important and necessary for most applications to read the lowest and most accurate concentration of the sample. Using the NeoFluo Fluorometer with the Quantification Kit allows the sample concentration to be measured quickly, sensitively and accurately.

The different models of NeoFluo

Code	Light	Excitation Filters	Emission Filters
NB-12-0044A	UV	365±20nm	420-480nm (60nm)
	Blue	460±20nm	525-570nm (45nm)
NB-12-0044B	Blue	460±20nm	525-570nm (45nm)
	Red	625±10nm	670-725nm (55nm)
NB-12-0044C	Blue	460±20nm	525-570nm (45nm)
	Green	525±20nm	575-640nm (65nm)

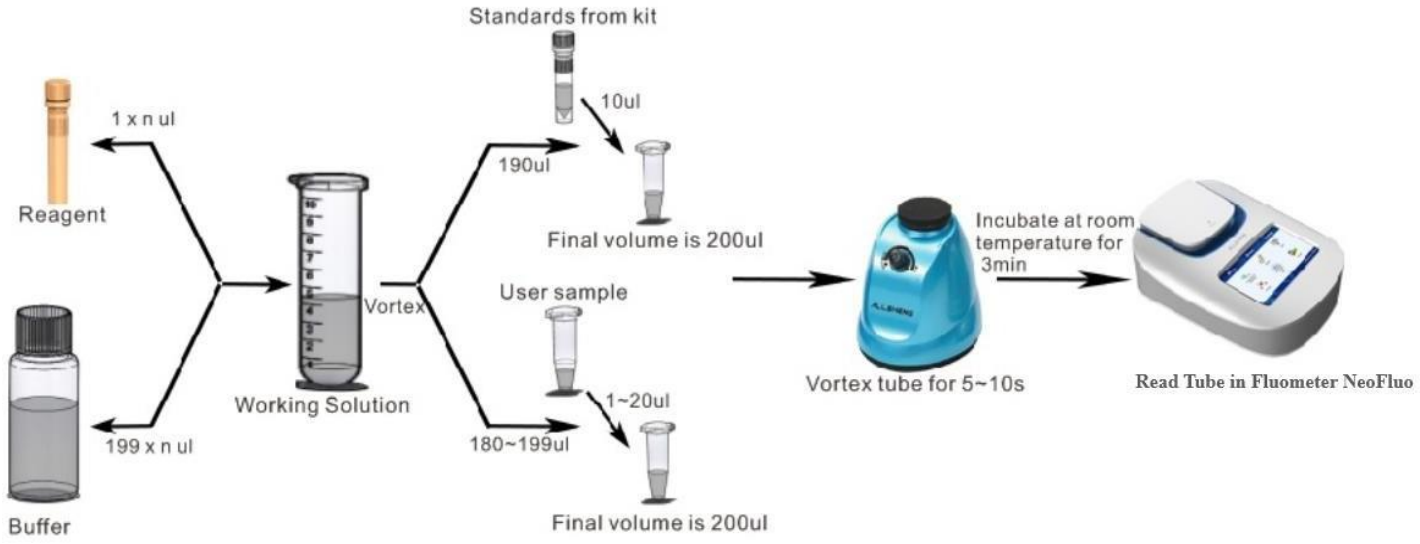
Quantitation kits

Although NeoFluo is an open system that can be used with the reagents of your choice, we also offer a set of quantification kits with different sensitivities according to your needs.

- 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

Fluorometer NeoFluo

How the quantitation kit works



Application of different fluorescence channel

Channel	Excitation Filters	Normal kits	Applications
UV channel	365±20nm	Hoechst 33258, 4-MU, EnZCheK Caspase	Nucleic acid quantification, Plant GUS reporter gene detection, Apoptosis 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 detection
Red channel	625±10nm	Cy5, Quant-iT RNA	Cy-5 fluorescence labeling detection, RNA quantification

Fluorometer NeoFluo

Ordering information

Type	Code	Description	Information
Fluorometers	**NB-12-0044A**	NeoFluo A	UV Channel, Blue Channel
	NB-12-0044B	NeoFluo B	Blue Channel, Red Channel
	NB-12-0044C	NeoFluo C	Blue Channel, Green Channel
Accessories	**NB-12-0044-01**	Adapter for 0.5ml qPCR tube for Fluorometer	
	NB-12-0044-02	Adapter for 0.2ml qPCR tube for Fluorometer	
Quantitation kits	**NB-12-0044-03A**	Broad-range dsDNA Quantitation Kit	1000 Assays
	NB-12-0044-03B		200 Assays
	NB-12-0044-03C		100 Assays
	NB-12-0044-04A	High-sensitivity dsDNA Quantitation Kit	1000 Assays
	NB-12-0044-04B		200 Assays
	NB-12-0044-04C		100 Assays
	NB-12-0044-05A	High-sensitivity ssDNA Quantitation Kit	1000 Assays
	NB-12-0044-05B		200 Assays
	NB-12-0044-05C		100 Assays