



QuantiFluo™ DNA Assay Kit

DNA quantification is a common practice in molecular biology. Accurate determination of DNA concentration is crucial for reproducible results in sequencing, cloning, transfection and DNA labeling. Very often DNA is available in minute quantities and the traditional UV 260 nm absorbance method requires microgram quantities for reliable results.

Simple, direct and automation-ready procedures for measuring DNA concentration are very desirable. BioAssay Systems' QuantiFluo™ DNA assay kit is designed to accurately measure nanogram quantities of plasmid DNA, cDNA, DNA following polymerase chain reaction and DNA eluted from gels. The improved method utilizes Hoechst dye that bind specifically with double-stranded DNA. The fluorescence intensity, measured at 450nm ($\lambda_{exc} = 350\text{nm}$), is directly proportional to the DNA concentration in the sample. The optimized formulation substantially reduces interference by substances in the raw samples.

APPLICATIONS:

Direct Assays: plasmid DNA, genomic DNA, cDNA, DNA following polymerase chain reaction, and DNA extracted from gel and other matrices.

KEY FEATURES:

Sensitive and accurate. Use 20 μL samples. Linear detection range 2 ng to 40 ng (100 – 2,000 ng/mL) calf thymus DNA in 96-well plate assay.

Simple and high-throughput. The “mix-and-read” procedure involves addition of a single working reagent and reading the fluorescence intensity. Can be readily automated as a high-throughput assay in 96-well plates for thousands of samples per day.

Low interference. RNA, salt (up to 3M NaCl), detergent (< 0.01% SDS), common DNA extraction buffer do not interfere in the assay.

Versatility: assays can be executed in 96-well plate or in cuvette.

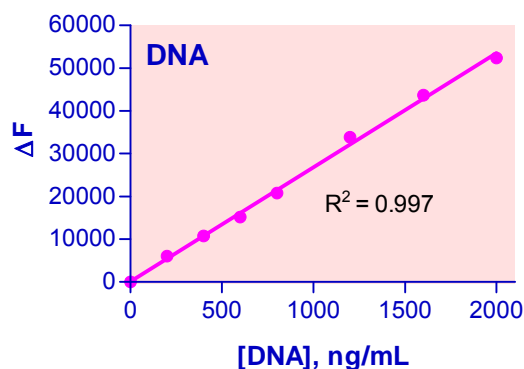
PRODUCT INFORMATION:

QuantiFluo™ DNA Assay Kit

QFDN-250

Each kit is sufficient for 250 assays in 96-well plate. Kit includes:

- 1 x 50 mL Reagent
- 1 x 1 mL 10 $\mu\text{g/mL}$ calf thymus DNA



Standard Curve in 96-well plate in assay

REFERENCES:

- [1]. Bachoon DS, Otero E, Hodson RE (2001). Effects of humic substances on fluorometric DNA quantification and DNA hybridization. *J Microbiol Methods* 47:73-82.
- [2]. Teare JM et al. (1997). Measurement of nucleic acid concentrations using the DyNA Quant and the GeneQuant. *Biotechniques* 22:1170-4.
- [3]. Bester MJ, Potgieter HC, Vermaak WJ (1994). Cholate and pH reduce interference by sodium dodecyl sulfate in the determination of DNA with Hoechst. *Anal Biochem.* 223:299-305.