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INSTRUCTIONS

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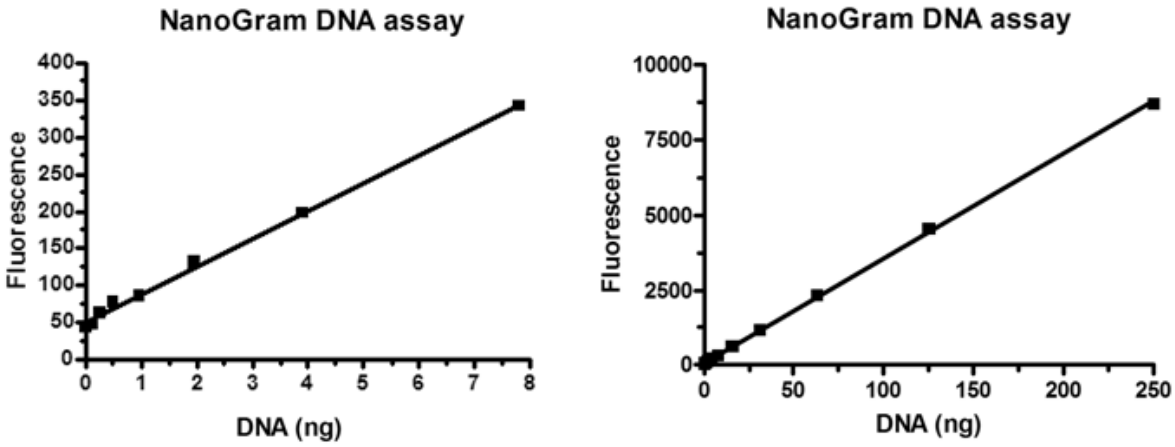
NanoGram DNA Assay Reagent

CATALOG NUMBER **NDA500**

INTRODUCTION

The NanoGram DNA Assay Reagent is for measurement of a wide range of DNA or RNA from nanograms to micrograms. The assay is based on the principle that DNA binds to the NanoGram fluorescence dye (Reagent D) and enhances the fluorescence intensity at 535 nm (excitation 485 nm).



The assay reagent (catalog number NDA500) includes 5 ml of 10 x Reagent D. It is for 2000 assays using 384-well plates or 500 assays using 96-well plates. Cuvettes may also be used for the assay.

DNA STANDARD CURVE

1. Dilute the 10 x Reagent D with water 10 fold to make 1 x Reagent D.
2. Prepare a series of standard DNA solutions with concentrations from 0.5 to 100 µg / ml.
3. Mix 10 µl of the DNA solution with 100 µl of the 1 x Reagent D in the wells of a 96-well plate for 5 min.

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Data Analysis

Plot the fluorescence intensity **Fc** and the DNA concentration **[DNA]** to generate the linear standard curve.

$$\mathbf{Fc = a\ [DNA] + b}$$

Where the **Fc** values are from experimental data, the **a** and **b** values are from the linear fitting between the **Fc** values and the DNA concentrations.

UNKNOWN SAMPLES

Follow the same procedure to measure the fluorescence intensity **Fc** values from the unknown samples. Calculate the DNA concentrations in the unknown samples using the **Fc** values from the unknown samples and the **a** and **b** values from the standard curve.

$$\mathbf{[DNA] = (Fc - b) / a}$$