**Product Name:** **High Sensitivity dsDNA Quantification Kit**

**Catalog Number:** **RA20068**

## Basic Information

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| **Product Name** | High Sensitivity dsDNA Quantification Kit |
| **Size** | 200T/1000T |
| **Storage** | 4 °C, away from light |
| **Shipping** | Shipped with ice pack |
| **Validity** | 12 months |
| **Ex/Em** | 485/530 nm |

## Product Introduction

High Sensitivity dsDNA Quantification Kit is different from conventional absorbance-based measurements. This kit can distinguish between dsDNA, ssDNA, and RNA, and selectively detects dsDNA. Compared with traditional DNA quantification methods, this product has the advantages of a wide detection range, high sensitivity, and high specificity. The High Sensitivity dsDNA Quantification Kit can quantify 0.2–100 ng of dsDNA in a 200 µL system. In addition, this product can minimize the impact of other contaminants and can tolerate common impurities such as proteins, salts, organic solvents, and detergents. Moreover, this product is not membrane-permeable, non-cytotoxic, and non-mutagenic, and is safe and harmless to humans.

## How to use

1. For best results, use precisely calibrated pipettes and RNase-free tips, tubes, and assay plates. It is recommended that 3 replicates be set for each DNA standard and unknown sample. If more than one 96-well plate is used for the assay, it is recommended that a standard curve be set for each 96-well plate to minimize the error between assay plates.
2. Before use, remove the product from storage conditions and return it to room temperature. If component B precipitates, it can be dissolved in a 37°C water bath. Each component should be fully shaken or vortexed and centrifuged to avoid unnecessary reagent loss.
3. Each sample to be tested corresponds to 200 µL of High Sensitivity dsDNA Quantification Kit working solution. For a 96-well plate, aspirate 200 µL of component B, add it to 20 mL of component A, vortex to mix, and prepare High Sensitivity dsDNA Quantification Kit working solution. For best results, the working solution should be used within one hour. If the working solution is re-stored and used within 24 hours, the accuracy of the results will be slightly lost. During storage, the enhancement solution may precipitate, which can be resuspended by vortexing.
4. For each sample, pipette 200 µL of the working solution into the black 96-well microwells. To ensure accurate and reliable results, it is recommended to make three parallel wells for each test sample and

DNA standard. This process can also be performed using a multi-channel pipette with a precise range. The black test plate can reduce fluorescence interference between test samples.
5. Add 10 µL of dsDNA standard or 1-20 µL of unknown sample to each well of a 96-well microplate and mix gently using a pipette.
6. Incubate the microplate at room temperature in the dark for 5-10 minutes. For best results, read the plate immediately after incubation. You can also read the data within 6 hours, but the accuracy of the results will be slightly reduced.
7. Fluorescence values were measured using a microplate reader at excitation and emission wavelengths of 485 nm and 530 nm.
8. A standard curve was prepared to calculate the DNA concentration of the test samples.
Note: You can make your own standard curve based on the actual measured data to calculate the concentration of the sample.

**Note: This reagent is for scientific research use only!**